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TABLE OF CONTENTS

ORIGINAL ARTICLES

| | |
|----------------------------------------------------------------------------------------------------------------------------|-----|
| THE TECHNIQUE OF SYMPHYSIOTOMY, WITH REPORT OF A CASE, BY FRANK A. GRAWN, MUNISING..... | 181 |
| SYPHILIS—ITS MANAGEMENT AND CONTROL, BY ALBERT E. CARRIER, DETROIT..... | 186 |
| DISCUSSION, BY WM. F. BREAKEY, ANN ARBOR..... | 192 |
| A PRELIMINARY REPORT OF SOME OBSERVATIONS ON THE BLOOD OF PREGNANCY, AND THE PUERPERIUM, BY GEORGE R. PRAY, ANN ARBOR..... | 193 |
| NON-ETHICAL ETHICS, BY D. L. WALMSLEY, DETROIT..... | 201 |
| THE ADVANTAGES AND LIMITATIONS OF THE REST CURE, BY GEO. F. BUTLER, ALMA..... | 206 |
| THE NON-SURGICAL TREATMENT OF | |

| | |
|------------------------------------------------------|-----|
| EPITHELIAL DISEASE, BY J. J. MOORE, FARMINGTON | 210 |
|------------------------------------------------------|-----|

EDITORIALS

| | |
|---------------------------------|-----|
| HOSPITALS FOR SMALLPOX PATIENTS | 213 |
| VACCINATION | 214 |
| THE ANNUAL MEETING IN DETROIT.. | 214 |

COUNTY SOCIETY NEWS

| | |
|------------------------|-----|
| BERRIEN COUNTY..... | 215 |
| EATON COUNTY..... | 216 |
| JACKSON COUNTY..... | 216 |
| KALAMAZOO COUNTY..... | 216 |
| LAPEER COUNTY..... | 216 |
| MONTCALM COUNTY..... | 217 |
| OSCEOLA COUNTY..... | 218 |
| ST. JOSEPH COUNTY..... | 218 |

| | |
|--------------------------------------------------------------|-----|
| OBSTETRIC ANTI-SEPSIS, BY AARON FLOYD KINGSLEY, CENTERVILLE. | 218 |
| TUSCOLA COUNTY..... | 220 |
| VAN BUREN COUNTY..... | 220 |
| WASHTENAW COUNTY..... | 221 |
| WAYNE COUNTY..... | 221 |

| | |
|-------------------------------------------|-----|
| MEETING OF THE STATE BOARD OF HEALTH..... | 221 |
|-------------------------------------------|-----|

OBITUARY

| | |
|----------------------|-----|
| EDWARD W. JENKS..... | 222 |
| PETER KLEIN..... | 223 |
| WM. B. TOWN..... | 224 |

COMMUNICATION

| | |
|-----------------------------------------------------|-----|
| A SYMPOSIUM ON MODERN PROSTATIC INVESTIGATION | 224 |
|-----------------------------------------------------|-----|

Original Articles

THE TECHNIQUE OF SYMPHYSIOTOMY WITH REPORT OF A CASE.*

FRANK A. GRAWN,
Munising.

A clear understanding of the technique of symphysiotomy, as of any other surgical operation, must find its foundation in a thorough comprehension of the anatomy of the parts concerned. It is assumed that the construction of the pubic symphysis, and the sacro-iliac articulation, is sufficiently well known to require no description at this time. There are two regions, however, involved in this operation, that are probably not so generally understood: the prevesical space or cavum Retzii, and the deep perineal fasciæ.

*Read before the Section on Obstetrics and Gynecology, Michigan State Medical Society, June, 1902.

M. L. Harris, in the November Journal of Obstetrics, 1894, maintains that the most serious complications and sequelæ are the result of tearing the fasciæ when the pubic bones are too widely or too forcibly separated. He also describes this region and the important structures that bear a relation to it.

The deep perineal fascia, briefly considered, is a firm, fibrous membrane, closing in the anterior portion of the pelvic outlet. It is about an inch and a half in depth, with its apex directed forward, and the base backward toward the rectum. It is attached anteriorly to the sub-pubic ligament and pubic symphysis; laterally to the ischio-pubic rami; and posteriorly to the central tendinous point of the perineum. It consists of two layers, superficial and deep. The superficial layer is a continuation of the deep layer of the superficial fascia, and the deep layer is derived from the obturator fascia. This fascia in the female is not so strong as in the male. It is divided in the median

line by the aperture for the vagina, and perforated in front of this by the urethra and dorsal vein of the clitoris.

The structures resting on the deep fascia between the deep layer of the superficial fascia and the superficial layer of the deep, are the corpora cavernosa clitoridis, the erector clitoridis muscles, and the bulbi vestibuli. Between the two layers of the deep fascia, we have the sub-pubic ligament, the dorsal vein of the clitoris, the membranous urethra, compressor urethrae muscle, glands of Bartholin and their ducts, the pudic vessels, the dorsal nerve of the clitoris, the artery of the bulbi vestibuli, and a plexus of veins.

The importance of this fascia in relation to the operation of symphysiotomy is that if the pubic bones are separated beyond a certain point during delivery, this fibrous membrane is liable to rupture. The laceration would probably occur at the weakest point, in the line of the perforations, and therefore would involve the structures that pass through the fasciæ—veins, clitoris, urethra and vagina. The tearing of these structures causes the most serious complications and sequelæ, such as hemorrhage, sepsis, urinary fistulæ, and incontinence of urine.

The cavum Retzii is formed as follows: The sheath of the rectus muscle, about a third of the distance from the umbilicus to the pubes, passes in front of this muscle, and thus the semi-lunar fold of Douglas is formed posteriorly. Below this fold the transversalis fascia divides into two layers, the anterior layer of which passes down behind the rectus to the symphysis, while the posterior layer passes over the bladder. The space between these two layers is known as the prevesical space, or cavum Retzii. The space extends later-

ally nearly to the epigastric arteries. This space is of importance: 1. Because through it, operations on the bladder and pubic region are possible, without opening into the free peritoneal cavity. 2. Microbic infection of the loose connective tissue in this space may cause a suppurative inflammation and abscess formation and a resulting ectoperitonitis. 3. Hemorrhage may take place into this cavity and burrow in the direction of least resistance.

Technique.

The patient is prepared as for an abdominal operation. The pubes, after being shaved, the abdomen, external genitals, vagina, and thighs are subjected to a thorough mechanical and chemical disinfection. Before this preparation is carried out, the bladder should be emptied and a metallic catheter retained or inserted later to depress the urethra out of reach of the knife as the pubic symphysis is being severed.

The patient is placed on a table with the thighs flexed and slightly everted. Two assistants must be at hand to support the thighs later in the operation. An assistant for administering the anæsthetic is also required. Chloroform for obvious reasons is the best anæsthetic.

When all is in readiness, the patient completely anæsthetized, an incision is made, beginning about $3\frac{1}{2}$ centimeters above the pubic symphysis and ending just above the clitoris, directly in the median line. The structures divided in the incision are the skin, superficial fascia, and the anterior ligaments of the joint.

The next step in the operation is the introduction of the index finger of the left hand between the pyramidalis and recti muscles into the cavum Retzii or preves-

ical space. The finger is used in this space for blunt dissection in separating the bladder and peritoneum from the posterior surface of the symphysis, should the latter descend so low in being reflected from the summit of the bladder. The symphysis is divided from above downward and backward with an ordinary scalpel. (Special knives for severing the joint have been devised by various operators.) The index finger may be retained back of the pubic symphysis or a metallic director curved on the flat may be used to protect the underlying structures while the symphysis is being divided.

The two assistants, one on each side of the patient, should support the thighs and sides of the pelvis while the joint is being severed in order to guard against a too great separation of the pubic bones.

It will be noticed as soon as the cartilage of the joint is divided, the pubic bones separate about one centimeter, being prevented from separating farther by the sub-pubic ligament and deep perineal fascia.

Instead of cutting the sub-pubic ligament, as many operators do, Harris conceived the idea of preserving this structure, thus lessening the danger of lacerating the deep perineal fascia and some of the structures that pass through it, in case the pubic bones should be too widely or too forcibly separated during delivery. The sub-pubic ligament and deep fascia should be carefully separated from the surface of the pubes by a blunt-pointed bistoury, under guidance of the finger, closely following the bone on each side. After this ligament is separated it will be found that the triangular ligament is no longer tense, and that the pubic bones have separated from five to seven centimeters.

This, Harris maintains, is the most important step in the operation. If the ligament and fascia are carefully detached from the bone all danger of hemorrhage and laceration of the soft tissues will be completely avoided. When this part of the operation of detaching the sub-pubic ligament is completed, any slight hemorrhage should be controlled and the wound protected by an antiseptic gauze compress.

The two assistants who have been supporting the sides of the pelvis and thighs while the joint was being incised, must also support these parts carefully, under guidance of the operator, during delivery.

Most authorities are of the opinion that delivery should be accomplished immediately after severing the joint. The operator must be certain that dilatation of the cervix is as nearly complete as possible. If the natural forces have not secured a sufficient dilatation, the manual method or the use of rubber bags should be employed to accomplish this end.

During delivery with the forceps there is a natural tendency of the anterior cervix, vagina, and bladder to drag down in advance of the head. This is caused by the loss of support that these parts normally have, on account of the separation of the pubic bones. When these structures drag down below the pubes as traction is being made, they should be carefully pushed back and the head delivered through the cervix. If the cervix is not sufficiently dilated and these structures pushed back, there may be separation of these parts from their post-symphysial attachments, thus causing quite extensive lacerations and hemorrhage.

The separation of the pubes also alters the normal mechanism as to rotation.

There is a tendency of the head to remain in transverse position. Anterior rotation of the occiput can usually be brought about by proper use of the forceps.

After delivery of the child and completion of the third stage the operation wound remains to be taken care of. Regarding the after-treatment of the wound it may be said that most Germans advocate suturing the bones with silver wire. The French and Italians and most Americans do not favor the use of silver wire or any other kind of suture.

Hunter Robb, in the American Text-book of Obstetrics, describes the suturing of the fibrous coverings and muscular insertions including the periosteum, using strong silk, silver wire, or silk-worm gut. These sutures are tied in the median line, cut short and buried.

Judging from the literature on the subject and my limited experience, I believe that, if the conditions are at all favorable, a good result may be obtained without resorting to the use of sutures. The indications of the after-treatment are to give the parts rest and keep the pubic bones in uninterrupted apposition, until complete union takes place.

E. A. Ayres, in the March number of the Journal of the American Medical Association, in an article on Symphysiotomy gives some requirements in the after-treatment to secure the surest and best results. They are as follows: 1. Constant apposition of the pubic bones with even coaptation, but without compression. 2. Ability of the patient to empty the bowels and bladder without disturbance of the pubic joint, and ease of cleansing the genital and anal regions. 3. Freedom from restraint of the body above the pelvis, and of the limbs, whereby lactation can be performed

and the great discomfort of prolonged restraint avoided. 4. The avoidance of bed sores.

Various methods of immobilization of the pelvis are employed after the operation. Adhesive strips are made use of by some, and sand bags by others. The u-shaped hammock of E. A. Ayers seems to me the best to meet all requirements. It is simple of construction and could be made by any physician if the occasion for its use should arise. I shall not take up your time with its description. Cuts and description may be found in the American Text Book of Obstetrics.

Report of a Case.

(I)

February 22nd, 1899, Mrs. A. J., aged thirty-seven, married one year, primipara, date of last menstruation, May 28, 1898, began to suffer labor pains. A midwife was called, but when, after forty-eight hours the birth had not taken place, she gave up the case and I was called to take charge. The patient was found to be comparatively free from pain at the time, but had suffered intensely and was greatly exhausted.

(II)

On inspection the abdomen was found pendulous and slightly asymmetrical. Palpation revealed the smooth surface of the back of the child to the left, and at the lower foetal pole the globular outline of the head above the brim. The breech was palpable at the upper pole and the lower extremities were to the right. Feeble foetal heart-sounds could be heard midway between the umbilicus and the anterior superior spine of the ileum.

On digital examination, the cervix was found dilated to about the size of a silver dollar, and the membranes were ruptured. Diagnosis of presentation L. O. A.

The true conjugate diameter from sacral promontory to sub-pubic ligament obtained by the digital method was approximately seven cm.

Placing the patient on a table in the Walcher position, I was able to make a high forceps application. Intermittent traction was made in line of the axis of the pelvis but without result. The forceps were applied an hour later, after the patient had obtained some rest and nourishment, with the same result as before: no descent of the head.

We were thirty miles from another physician and forty from a trained nurse. Not having been informed of the nature of the case when sent for, I was but poorly prepared for what was before me, my suitable instruments consisting of only a scalpel, two pairs of hæmostatic forceps, and a bistoury, and all but one ounce of the chloroform had been used during the application of the forceps. The woman was now in fearful agony, screaming and praying for help; the relatives were frightened, but willing that I should do what seemed best. Rupture of the uterus or complete exhaustion seemed imminent. Something had to be done at once, and symphysiotomy appealed to me as being the only operation under the circumstances.

At midnight, by the light of a small kerosene lamp, and the aid of the husband and brother of the patient, but with the usual antiseptic precautions and preparation of the patient, the operation was performed as nearly as possible, under the existing conditions, according to the technique above described. A well developed male child was born, but in spite of all efforts of resuscitation breathed but a short

time. The woman endured the ordeal very well, although the chloroform lasted only during the incision through the skin, and the rest of the operation was completed without anæsthetic.

Twenty-four hours later a temperature of 101° F. appeared, probably because of the manipulations of the midwife, and the application of the forceps. There was also a very offensive discharge and it was found that the vagina was slightly torn and these lacerations were infected. These disturbances yielded readily to treatment.

Shortly after, the patient complained of incontinence of urine. A vesico-vaginal fistula had formed, caused, I think, by prolonged pressure of the head during labor upon the soft tissue against the pubic bones, and the consequent necrosis of those tissues. The woman was unwilling to submit to an operation for this and still suffers from the lesion.

Regarding the patient's pelvic deformity I learned later from her that she had some disease of the osseous system during infancy as a result of which she was not able to walk until she was five years of age. The family and personal history are good outside of the trouble above referred to. The external pelvic measurements obtained after the operation were: External conjugate diameter, 17 cm. or 6.7 in.; interspinal, 29 cm. or 11.4 in.; intercrystal, 30 cm. or 11.8 in.; bistrochanteric, 34 cm. or 13.38 in.

The patient states that her surroundings were bad during infancy and that she was brought up on an artificial diet. She also said that the ends of some of the long bones were large. The early disease was probably rachitis and was responsible for her pelvic deformity.

DISCUSSION.

W. P. MANTON, DETROIT: This paper is one of great interest, and I think the doctor is to be congratulated upon the admirable manner in which he conducted the case under very trying circumstances.

The operation of symphysiotomy is evidently going out and is indicated in few instances except in cases like that reported by the doctor.

It is applicable in only a very limited number of cases. Where the antero-posterior diameter of the pelvis is not diminished to less than three and a quarter inches, operation is not indicated, and it is not indicated in cases of mild general contraction. This case, as the doctor reports, is evidently, as he states it, one of rachitic pelvis, with slight contraction or comparatively slight contraction. In such cases the operation might be indicated, but where the antero-posterior is less than three and a quarter inches, in all probability Cesarean section would be preferable.

I want to congratulate the doctor personally on the successful manner in which he conducted this case and its happy outcome.

W. F. METCALF, DETROIT: I think there should be more congratulations extended to the essayist in bringing this case successfully through under such conditions. As Dr. Manton has said, the profession favors this operation perhaps only under such conditions, or where the operator is not familiar with abdominal surgery. That is the position I took in the beginning and, therefore, have never performed symphysiotomy, but in these conditions where high traction forceps cannot deliver, and many cases can be delivered by the use of high traction forceps that cannot be delivered with the ordinary forceps, then under these conditions symphysiotomy is the best operation, the only procedure perhaps.

SYPHILIS, ITS MANAGEMENT AND CONTROL.*

ALBERT E. CARRIER,
Detroit.

As long as the world has existed, passion has been gratified illicitly, and to this gratification, certain penalties have been

attached, in the way of the various venereal diseases. How these affections first sprang into existence is a matter of much interest, but of far greater importance is the question of eradication, by prevention of contagion, and the management of the several affections with the object of curing in the speediest manner possible.

Syphilis is a contagious disease, and is in all probability due to a specific germ, or microbe. The disease is essentially a chronic one, and this chronicity is not measured by weeks, but runs into the years; sequelæ as a result of the affection often occurring five, ten, fifteen, twenty years after the inception of the specific virus. From the year 1836, bacilli, and cocci have been demonstrated in the blood, and lesions of syphilitics, but up to the date of Lustgarten's paper in 1884, little was discovered bearing upon the relation of these germs to the causation of syphilis. Lustgarten claimed that he found a peculiar bacilli in chancres, gummata, papules, both dry and moist, and in the lymph glands. Other observers from that date up to the present time have found peculiar bacilli in various syphilitic lesions, and while we have not isolated a germ able of demonstration in every case, the consensus of opinion is strongly in favor of germ theory. The argument that the bacilli are not found in large enough numbers to account for the seriousness of the disease hardly holds good, for we have a like instance in lupus, which to-day is a known tubercular disease, due to the tubercle bacilli, and yet it is a very difficult matter to demonstrate these germs in lupus lesions. Syphilis is the only venereal disease that is capable of transmission by inheritance, and from this fact the study of the disease has an added importance.

*Read at the Annual Meeting of the Michigan State Medical Society, Port Huron, June 27, 1902.

Syphilitic lesions of the skin and mucous membranes are due to a deposit of the virus in the tissues, and it is from the discharges of these lesions that the disease is contracted, contact of this virus with an abrasion being necessary for the development of a case of lues. This property of contagion is not present during the whole course of the disease, but no time limit can be given after which we may say the disease is not contagious. Personal contact is not necessary for infection, the contagion, or virus may be transmitted by various media, such as clothing, drinking cups, the barber's razor, instruments, etc., and the disease contracted in this manner differs in no way from the venereal affection, pursuing the same course, and being followed by the same sequelæ. The infrequency of contracting the disease in this way may be accounted for by the sparse number of bacilli found in the syphilitic lesions. The number of individuals suffering from contracted, or inherited lues, we have no means of knowing, for while contagious diseases are required to be reported to boards of health, for some inexplicable reason, syphilitics are not reported, and even in our own state, where the health board laws are supposed to be of the best, and requirement of reporting contagious diseases is so rigidly enforced, even in the fining of delinquents, syphilis is excepted. In regard to the number that die as a result of lues, statistics are again of little value, for very few of us are willing to put the cause of death as syphilis, when we can call it locomotor ataxia. I imagine if we could have spread before us to-day accurate statistics regarding the death-rate among syphilitics it would open our eyes to the necessity of more strenuous measures for its control. For the same

reasons statistics regarding the chronic invalidism due to syphilis are not on record.

Can syphilis be cured? In the exanthemata we have a class of diseases that have the peculiarity that one attack protects the individual from a second attack, in other words he is rendered immune. Of course exceptions to this rule occur, but in the main it holds good. Syphilis in many of its features is like the exanthemata, in having a period of incubation, a period of invasion, then an eruption, and during a varying period an immunity. Cases of lues are by no means few where the disease has run its whole course without any specific medication. (I refer to the disease in its active stage, the so-called secondary period) and the individual never during his after life giving any evidence of the disease, nor having any syphilitic manifestations occurring in his children. Cases of this kind are on record, and the recorders have been competent observers; now if this is true, then syphilis is a curable disease. As positive proof of the curability of the disease we have well authenticated cases of a second infection. Much more difficult of answer will be the question, "how long will treatment be required," and "when can the patient be pronounced cured?" During the course of the disease there is a period of time when it is contagious, and capable of transmission by inheritance, and another period when the contagiousness is not present, but when the conditions are still syphilitic, being the result of the influence of the specific virus upon the different tissues of the body, and usually attended by most destructive lesions. This period has been called the tertiary period; it would be better to denominate these lesions as sequelæ of syphilis. These

lesions are either due to a special malignancy of the virus in a given case, or may result from inadequate treatment. These so-called late lesions may, however, occur very early during the course of the disease, at times within a few months of the initial lesion. On the appearance of the initial lesion we have no means of prognosing the character of the succeeding lesions, nor as to the severity of the affection, but this, is always to be borne in mind, that the general health of the patient is a modifying factor in the course, and severity of the disease, and that organs that are prone to other pathological attacks, are likely to be selected for the site of syphilitic lesions. A tubercular patient contracting syphilis will be apt to have a grave form of the disease for two reasons, first, the inability of an unhealthy organism to combat the syphilitic processes, and second, from the impracticability of using remedies that are known to exert a favorable influence upon the disease, because harmful in tuberculosis. Malaria is another notable instance of unfavorable influence exerted upon the syphilitic. Habit is another factor in prognosis; venereal excesses, intemperance, and the inordinate use of tobacco, all exert a baneful influence on the syphilitic.

No case of syphilis can be considered properly managed unless attention has been given to the physical condition of the patient previous to contracting lues. Specific medication is for the disease itself, but in many individuals it will be found not to accomplish the required good, when a tonic and roborant medication will be followed by benefit. The physician should not allow his judgment to be biased by the disease so as to interfere with his general therapeutic knowledge, and treating

of the individual as if free from specific disease, in other words treating syphilis means treatment of the individual suffering with disease, and to this adding the specific medication. The patient must be brought up to the best possible standard of health before we use mercury. In addition to this as a preliminary preparation to the real treatment of the disease, is the hygiene of the luetic. A person with a suspicious lesion should have his diet regulated, attention should be given to the gastro-intestinal tract, and the functions of the kidneys looked into, constipation overcome, or diarrhoea controlled, dyspepsia cured etc., for the patient is to be under constant medicine taking for years, and in preparation for this the digestive, assimilative, and eliminative functions should be fully up to the standard of health. The time between the occurrence of the suspicious lesion, and the corroborative evidence of the secondaries gives us the opportunity for this preparation, while at the same time we have the individual's confidence, for he sees that we are treating him, a physical influence that is of value.

One routine matter that is of great import is attending to the mouth and teeth, have the dentist look after this in every instance; with healthy teeth, mouth lesions may not appear. The use of tobacco had better be stopped as it predisposes to mouth lesions, and seriously interferes with their removal if present. Intemperance of all kinds stopped.

Prophylaxis of Patient.

In spite of all that has been written, or spoken about the danger of infection to those who have been in contact with the syphilitic virus, we are constantly meeting with cases occurring innocently.

A syphilitic should sleep alone; a case under my care resulted in the contraction of the disease by a healthy man sleeping with a man who had the disease, for one night only in a Chicago hotel, and he in turn gave the disease to his wife.

Among the most virulent of syphilitic lesions are the mucous patches, and as they occur in the mouth, no healthy person should kiss a syphilitic. A person with syphilis should be instructed by his medical attendant never to allow any one to kiss him at any time, for these patches are liable to occur at any time, and the patient may not be aware of their existence. Kissing should be abolished anyway.

Toilet articles, and articles of wearing apparel of the syphilitic should be sacred to his use only, the changing of a hat may result in a new case of lues. The syphilitic should shave himself, or his barber must be instructed in the precautions that are necessary to prevent inoculating innocent persons. The syphilitic's pipe, pocket knife, and jewelry should not be used, or worn by others. Specific directions should be given regarding the care necessary to prevent the innocent from contagion, and the importance of their observance impressed upon the individual.

In considering the management of syphilis I wish to call your attention, first, to the treatment of the individual as a sufferer from luetic poisoning, and second, as a citizen suffering from an exceedingly contagious disease.

We have seen that syphilis is curable, what measures are to be used to accomplish this result most speedily?

The experience of years by competent observers has taught us that there is no disease in which we can be so optimistic regarding the results to be obtained from

drugs as syphilis. Specific medication in lues is a fact, and the specifics are mercury, and iodine. Differ as we may regarding dosage, or the time of administration, or the preparations used, no case of the disease can to-day be considered as properly treated unless these remedies have been given.

Mercury is the drug that we are to give during that period of the disease when it is contagious, when it is capable of transmission to offspring, that period which is usually denoted as secondary, and which has lesions that are characteristic for our guidance. When to commence the treatment of a case of lues will depend in cases upon two conditions, first, a positive diagnosis, and second, our ability to impress the patient with the necessity of a protracted medication. I mention the latter as a condition because some physicians think that medication should begin as soon as the chancre makes its appearance, without waiting for the appearance of the so-called secondary manifestations, which are such valuable adjuvants in impressing the sufferer with the necessity of a course of treatment that should last for a period of at least four years. Patients are apt to think that a doctor has made a mistake in his diagnosis of the disease if nothing has shown but the primary lesion, and to become discouraged over medicine-taking and discontinue treatment; these are the cases that are apt to be followed by destructive lesions later.

No case of syphilis has been properly treated that has not been under the influence of mercury for two years at least.

Patients have been educated by the public press to regard mercury as a most dangerous weapon, and persist in their requests for its discontinuance, syphilo-

graphers refuse to yield to their requests, but we find general practitioners sometimes do, or its dosage is so small, or it is continued for so short a time that it does not do the good expected, and it had better be left alone than used in this way.

What amount of the drug shall be given at a dose? If there is antagonism between mercury and the virus, or if the specific germ is destroyed or inhibited by its use, then the rule must be to give the largest dose of mercury that can be absorbed without injury to the health of the patient, and experience has shown that this amount varies with the individual, but can be determined by beginning with the minimum dose and increasing it gradually, each dose, until the full physiological effect of the drug is produced which will be shown by the beginning of toxic effects, this dose cut down to one-half, or one-third will constitute the amount of the drug to be used during the period of mercurial treatment.

The use of iodine begins after the active stage of syphilis; it exerts little influence upon bacteria, but where there has been an excess of cell growth, as is found to be the case in the later years of a syphilis, absorbent stimulation becomes necessary, and the iodine accomplishes this better than any other drug. The late lesions are characterized by great cell growth, which forms an organized tissue that is imperfect. This tissue is the result of an increased activity during the secondary period, and requires liquification, and the iodides are known to cause fatty degeneration of such tissue. That there are peculiarities in patients regarding the effects produced by ingestion of certain drugs is positive, and while in many instances this idiosyncrasy may be the result

of some pathological process interfering with elimination, there are instances in which the closest scrutiny fails to discover any cause for the peculiar action, and this must be taken into account when ordering the iodides. Iodide skin lesions are common and often taken for syphilides, to the harm of the patient. Indications for the use of iodine other than in the ordinary late lesions, are those cases called precocious, rapid ulceration, implication of internal organs early in the disease, gumma occurring also early, and where marked cerebral symptoms occur. The dosage is graded by the effect upon the disease, beginning with small doses. Where enormous dosage is necessary hot baths become a valuable adjuvant.

I have said nothing about local therapy, nor have I mentioned destruction of chancre, nor of the various methods of inunction, sublimation, or hyperdermatic injection, I only wish to call attention: First, to the treatment of the patient, bringing him up to the best possible standard of health before beginning his specific medication, and second, to the necessity of a thorough and lengthy, and uninterrupted course of mercury, and third, to a more or less lengthy course of iodine dependent upon syphilitic manifestations.

It is estimated that there are 200,000 syphilitics in greater New York, with a total population of 3,560,000 people. The total of contagious diseases reported in New York for the same time was 30,422. The deaths from syphilis during the year were 177. This, for reasons already stated, must be far below the three numbers. Randall's Island Nursery Hospital reports 8 per cent. of deaths due to syphilis. In a report of 7,200 cases of syphilis, 468 were children with hereditary

syphilis. You know the mortality of syphilitic pregnancies; now if each living syphilitic child represents only three deaths, over 1,300 have occurred as a result of the 7,200 syphilitics reported. But at least 80 per cent. of syphilitic conceptions result in death of the foetus, and the 468 living children would mean a death rate of over 1,800. The great commercial centers are of course the breeding places of this scourge, and to them we should look for the institution of sanitary measures for the control of this disease. Malcolm Morris says "a syphilitic with secondary manifestations is a danger to all around him. He is charged with a poison more baneful than that of the most venomous snakes, which is conveyed on whatever he touches with polluted lips, from a pipe to a communion cup."

Thousands of dollars are spent every year in the health departments of even our smaller cities to prevent the spread of a disease that may number a dozen individuals in the course of a year, while syphilis, with its hundreds of centers of infection is not even recognized by our boards of health as a contagious disease. Is it not about time that some measures were adopted for the restriction of venereal diseases? Valentine is quoted as saying that the two diseases kill more than all others put together. What can we do?

In the first place, it must be recognized that prostitution is here to stay, and just so long as men and women are endowed with passion, will means be provided for its gratification. Teach morality by all means, but put forth best efforts at the same time for proper sanitation. The millenium will long have passed, before by

education we have wiped this scourge away.

Time will not permit me to go into detail of any length on measures of control. It will be granted that if the state has a right to quarantine smallpox, scarlet fever, etc., that it has a right to enact laws looking to the prevention and eradication of syphilis. As the larger number of cases come from prostitution, some measures should be put in force having in view the bettering of the prostitutes' condition. Licensing of prostitutes will probably never occur in this country, and in foreign lands, where this system is in vogue force, while some good has undoubtedly been accomplished, it has not come up to the expectations of the profession.

Between the ages of fifteen and thirty, venereal diseases are most frequent. Instruction of our young men, while in the school or college, as a regular part of the curriculum, might do good, the dangers of the disease, the liability of promiscuous intercourse, and the dire results in the way of chronic invalidism might be forcibly impressed upon the student. There is a morbid disinclination among parents, and instructors of children, to educate them as to the proper use and care of the genital organs, which the child is left to learn sometimes by a most bitter experience.

Difficulty in fixing the source of the contagion prevents the enactment of a law looking to the punishment by fine or imprisonment of the person from whom in illicit intercourse had been contracted a venereal disease.

A license to marry should go farther than simply to show that the parties were of marriageable age. The state supports at an enormous expense those unable to care for themselves, and as in-

herited diseases are often pauper makers, the state should say who should marry, and as syphilis is hereditary, its subjects should not be allowed to procreate.

Private prostitution carried on in places known not to be public houses is the place where the most danger exists, and immoral women should not be allowed in other than known public houses, but in these places should have the protection afforded any other class of business, or calling, and after a time the business would seek a centre by itself, where it would conduct its affairs under recognition.

How about the male prostitute; can anything be done to prevent his spreading the disease? I think he is as prominent a factor in the dissemination of the disease as the prostitute, and as this section is largely men, I leave it with you to enact preventive measures for the male offender.

I think that the time has come for the reporting of syphilis to health boards, not maybe at the present, as a means of identification, and control of the individual, but as a measure of education regarding the prevalence of the disease, and its sequelæ.

DISCUSSION.

WILLIAM F. BREAKEY, ANN ARBOR: The time permitted for discussion is quite too brief to do anything more than touch upon the salient points of Dr. Carrier's excellent paper, and it is too important to go without some discussion. I wish to emphasize some of the points he has made. First, as to the complications of syphilis. It goes without saying that syphilis is abroad upon our streets and we meet it everywhere, often without recognizing it. The more pronounced skin diseases are visible, cases of eczema and acne and other forms of skin diseases that show upon the faces of the individuals are

seen, but syphilis is often covered by clothes, which cover a multitude of physical sins, as the mantle of charity covers the moral ones, or hidden in cavities or tissues invisible to casual observation.

I quite agree with Dr. Carrier as to the favorable prognosis of syphilis and I am glad to hear the view presented. I think the pessimistic idea is too prevalent in the profession that syphilis is necessarily an incurable disease, and many practitioners fail to persist and to urge persistence upon the patient, and to keep him up to medication, not necessarily always specific medication, but such wise and discreet management and care as shall take into account the maintenance of nutrition. As the doctor has said, no absolute arbitrary rules of dosage or of particular specific treatment can be outlined in advance; the individual patient must be treated, and the variable results secured are due often in large measure to the resistance of the individual.

The patient who is exposed to typhoid fever, already enfeebled by previous disease, or poor nutrition, is very much more likely to have a serious case than one in good vigorous health. So with syphilis, a child, an old man, or one otherwise enfeebled, is much more likely to be seriously affected by the syphilitic poison.

There is a single point the doctor has touched upon, that of elimination. It is a point I have given some attention to, and I have maintained, in teaching students this point by analogy, at least, that we have a right to believe there is a decided elimination of syphilitic virus through the skin. I concede we are unable to prove it by any demonstration; we cannot do it by experiments upon the lower animals, and it is only by analogy, as an argument, that we can do it.

To some extent it must be accepted that syphilis is an exanthem, only the period of incubation differs between that and scarletina and other exanthemata. In those cases we know that the desquamative products are highly infectious; in scarlet fever especially, infected clothing may give the disease months or years after. Why then, may not the scales of syphilis, as of smallpox, be infectious? If they are, does it not follow as an argument that they eliminate the poison?

The time is too brief to go into this question, and I only wished to call attention to that idea, which I think is tenable, that we should endeavor by all means to promote elimination by the skin, and in so doing we must necessarily wait for every opportunity that the secondary lesions afford, and that no treatment should be adopted which is liable to interfere with the efflorescent

process in the beginning of the secondary lesions.

A single other point, which I think is well worthy of consideration, in addition to what Dr. Carrier has mentioned and emphasized—the large number of cases of extra-genital syphilis. Bulkley has collected I think in the neighborhood of nine or ten thousand authenticated cases of syphilis of the innocent, not at all venereal.

These added to the many times larger number of cases, equally innocent, though occurring in marital intercourse, together with the long list of inherited syphilis, furnish more reason if more is needed, why some sanitary control, restriction or management of the still greater number of dangerous syphilitics, should be secured, and the public better protected against this infection.

Of the need for this there is no question.

How it shall be accomplished is a problem worthy of more consideration than it receives from the profession of medicine or the public. It is not new. It has engaged the thought of many of the best men in the profession for many years. And it is to medical men and medical science we must look for any improvement of the present deplorable situation. And though sanitary police of such cases seems as impracticable under present social conditions as regulated prostitution, yet the increased public interest in sanitary science and preventive medicine offers encouraging hope, that with greater public enlightenment we may look forward to the time when the state, with its same right and wisdom, with which it now protects its citizens against diseases dangerous to the public health, shall require of those seeking license to marry, in addition to conditions of age, etc., such evidence of physical and mental qualifications to perpetuate the race, as shall save the world from the blight and care of the great number now born diseased, degenerate, doomed to miserable existence or premature death, and a burden to the state itself.

A. E. CARRIER, DETROIT: Mr. Chairman, I will say very little. The number of insane patients with syphilis, as Dr. Breakey stated, is very great. I am sorry there is not more time for I would like some expression as to means and measures by which we could control this disease. The reports that come from different authorities are very meager. The morbidity resulting from syphilis is hardly appreciated; the death rate we know nothing of for the reason that I have stated in the paper, that we do not report these cases. It seems to me some measures should be taken by which a better knowledge of the disease, which affects so large

a proportion of the population of the country may be had, and in closing I just want to offer these preambles and resolution here:

Whereas, syphilis is an exceedingly contagious disease, and

Whereas, it is known that a large proportion of the population is affected with the disease, and

Whereas, these individuals are a constant menace to the community, and

Whereas, health boards do not require the reporting or isolation of the syphilitic, and

Whereas, the disease is so frequently contracted by individuals non-venereally, and

Whereas, chronic invalidism so often results, rendering the sufferer a burden to the community, and

Whereas, no means have been adopted by legislation to prevent the spread of the disease, nor to educate the community regarding the contagiousness and the danger of the affection, and

Whereas, our vital statistics give us little information regarding the morbidity or mortality of the disease;

Therefore, be it resolved, that the State Medical Society appoint a committee of one to collect from the members of the society data regarding the prevalence of the disease in patients coming under their care, the report to be used as a basis for securing some action or legislation looking to the prevention of syphilis.

Whether that should be offered here or offered in the general session I don't know.

THE CHAIRMAN: I think, Dr. Carrier, before any action could be taken by the State Medical Society, that would have to come before the general session, and I would ask you to bring it up there.

A PRELIMINARY REPORT OF SOME OBSERVATIONS ON THE BLOOD OF PREGNANCY AND THE PUERPERIUM.*

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In a study of the literature one is impressed by the lack of uniformity concerning the condition of the blood during preg-

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nancy. Even prior to the perfection of instruments of precision for estimating blood states it was the prevalent opinion that the blood was changed during pregnancy. The pregnant woman was thought to have a much increased blood production, giving rise to a plethoric condition. As opposed to this view may be cited Ramsbotham,¹ who spoke against the habit of indiscriminate blood letting, simply because the woman was pregnant, as was quite universally practiced at that time. No very definite work was done toward the solution of the question till Nasse² in 1853 published the results of some very careful and exhaustive researches upon 39 cases of blood lettings in pregnant women. In 1876 he published a more complete paper containing the blood findings in bitches examined before, during and after pregnancy. The examinations included a study of the specific gravity of the blood, the fibrin, the water of the blood, and the salts including iron. He found that during pregnancy the salts and the specific gravity were diminished, while the water and fibrin were increased. A day after labor the specific gravity was increased and the water diminished, while from eighteen to twenty days later they reached normal. The increase of fibrin lasted longer.

Chemical investigations are of value in that they may throw more light on a blood state than the counting of the red cells. These investigations showed the condition of the blood to be one more of anemia than plethora.

Andral and Gavart,³ by less extensive investigations, had arrived previously at similar conclusions. Acting on the same hypothesis Cazeaux and Scauzoni, after observing cessation of symptoms, such as

vertigo, tinnitus aurium and headache, after increasing the quantity and quality of the food of the pregnant woman and after the administration of iron propounded their view of a chloro-anemia.

Willcocks⁴ more recently has pointed out that this view is not correct inasmuch as the hemoglobin for the individual cell is not lessened.

Speigelberg and Gschleiden⁵ have shown experimentally that the amount of blood in pregnant bitches was increased volumetrically to fill the dilated vessels of the pelvis. The weight in general increases during pregnancy as has been shown by several observers. This increase is not dependent entirely on the growth of the uterus and its contents and enlargement of the mammary glands, as Nasse has shown by experimentation. The fatty tissue is increased particularly, the muscles not participating in the change.

Mencanti⁶ more recently found in pregnancy with a constant hemoglobin index a falling specific gravity.

Because of these findings, the increased circulatory area, the increased nutritive demand by reason of the hypertrophied organs and foetus, the chemical finds, and a constant hemoglobin index with a fall of specific gravity we are forced to believe that the condition is one of serious hy-dremia. This presupposes a constant number of red cells and no loss of functional value of the given cell by reason of this dilution. Cabot,⁷ p. 56 (*Chin. Exam. of the Blood*), speaking of the red cells, says normal pregnancy does not affect the blood count. He admits that dilatation of the vessels by drugs causes a condition of serious dilution of the blood but says this is only temporary. Stengel and Stanton found the blood pressure to be the same

during pregnancy as before. Taking into consideration the greatly increased circulating area of the blood we see that there must be a volumetric increase of the blood to cause this.

Evidence of increased fibrin in the blood of pregnant women is furnished not only by fresh specimens examined microscopically, but by the deposits found on the inner table of the skull and on the pelvic bones, wrongly called by Rokitansky, osteophytes. The increase in fibrin is greatest near labor and clinically is shown by the increased coagulability at this time. Peckelharing⁸ has shown the source of the fibrin to be a nucleo-proteid due to the disintegration of white blood cells and blood plates. The increase of fibrin is not surprising when we consider the greatly increased metabolism which Nasse proved by estimating the nitro-genous output of the urine and foetus.

Fehling⁹ found an increased hemoglobin in the earlier months of pregnancy and ascribed it to better hygienic surroundings incident to the state. His average for the red cells during pregnancy was 3,500,000 and for hemoglobin 93 per cent., a very high percentage for the number of cells present. After labor 47 of his 83 cases dropped correspondingly in the red cells and hemoglobin, 26 increased slightly, and 10 remained constant.

Meyer¹⁰ examined 37 cases on three different occasions, once early in pregnancy, once the day after labor, and finally after the patient got up. The difference between the average of his first examinations and an average obtained for non-pregnant women was 7000 red cells and 7.8 per cent. hemoglobin in favor of the non-pregnant woman. He found both markedly decreased after labor and also

ascertained that the hemoglobin had risen in two weeks to a point above that found at his first examination. This led him to believe in the chlorotic anemia view.

Rein¹¹ observed an increase in red blood cells and hemoglobin in anemic cases after entering the maternity hospital. He concluded that this change was due to an improved condition of living and believed that if anemia occurred in pregnancy it was due to the ordinary causes of anemia and it progressed similarly to that in the unimpregnated woman.

Dubner¹² found in 20 cases, nineteen to thirty-six years of age, married and of the working class, an average decrease of about 6 per cent. of hemoglobin and 275,000 red blood cells during pregnancy. He claimed that by securing better hygienic surroundings the blood could be brought to normal. The diminution of the red blood cells and hemoglobin was proportional to the amount of blood lost. Eight days after labor the condition present before labor was re-established.

Schroeder¹³ found that in 34 cases examined during pregnancy 25 increased 12.92 per cent. of hemoglobin and 9 decreased the same amount. He examined 42 cases after labor and found that 33 had a decrease of 10.2 per cent. in the hemoglobin, 7 cases increased 6.8 per cent., and 2 showed no change. Twenty-five cases regained 7.6 per cent. during the lying-in period leaving them 2.75 per cent. behind the average for pregnancy. The normal amount was not reached for some time.

Bernhard¹⁴ found the average for red cells and hemoglobin practically the same in pregnant and non-pregnant women. He claimed that pregnancy was apt to produce anemia in weak persons, while in strong

persons an improved condition of the blood often resulted.

Wild¹⁵ found a small increase of hemoglobin and red cells in the last few weeks of pregnancy and a well marked increase in the white cells. After labor the hemoglobin and red cells sank, the first in a more marked degree. The whites were most numerous shortly after labor, sinking gradually during the lying-in period.

Elder and Hutchison¹⁶ found the average of hemoglobin in 7 cases at term to be 72 per cent. The reds were found below normal in practically all cases. These observers studied the relation of the child's and mother's blood and found that the condition of the former was always much better than that of the latter. The hemoglobin varied in the mother from 60 to 83 per cent., which was about two-thirds that found in the child or 95-115 per cent. The average number of white cells at term was 14,522 per cubic millimeter.

Henderson¹⁸ made observations on fresh blood, fibrin, hemoglobin red and white cells. The only change in the fresh specimen in normal cases was the increased fibrin. The day following delivery the hemoglobin averaged 68.2 per cent. He observed an increase of 5 per cent. during the lying-in period. The red cells at term were 3,975,348. There is a decrease of the red cells for two days after labor, then a gradual rise till the ninth day, when a second fall occurs, which lasts for some time and probably to some extent throughout lactation. The white cells averaged 21,365 at term. (These counts were taken mostly during the progress of labor thereby giving too large a number for a correct average at term.) The average was practically the same in primiparous and multiparous patients. The white

cells decreased in number steadily after confinement, but some leucocytosis persisted as long as the patients remained under observation.

The following observations were made on 12 patients admitted to the obstetric service of the University of Michigan Hospital from March 12 to June 1, 1902. The observations include 104 examinations and counts of the red cells, white cells, hemoglobin and 25 differential counts of the leucocytes. Examinations prior to delivery were necessarily omitted in two emergency cases, one a Caesarian section and one a case of puerperal eclampsia. Eight of these twelve patients were primiparae. The ages varied from sixteen to forty-one years. The occupations were, one school girl, one waitress, one factory operator, one actress (puerperal eclampsia), three housewives and three housemaids. Their average stay in the hospital before delivery, excluding the two emergency cases, was forty-two and six-tenths days, which is a longer period than most observers have had their cases under continuous observation. While in the hospital these patients received the ordinary house fare, a generous mixed diet. They took but little exercise, although urged to do so. The technique of the blood examinations was as follows: Before confinement the blood was counted and spreads prepared every four or five days. The first day after confinement and every succeeding second day counts were made and spreads prepared. The blood was taken from the second finger without pressure. The Thoma-Zeiss apparatus was used for counting the cells. The red cells were diluted one hundred times with Toison's solution. The white cells were diluted forty times with one-third per cent. solu-

tion of glacial acetic acid. The hemoglobin was estimated with Tallquist's chart. While not quite so accurate as Fleischel's instrument in a large series of observations the results will only vary a trifle. For the reds the five larger squares, one on each corner and the one in the center were counted, giving one hundred and sixty of the smaller squares on the two specimens counted. The whites were counted after the method of Thoma (Virchow's Archiv. 1882), in which the blood is diluted 1-40 and a field of just such size found that it exactly touches the corner of the Thoma-Zeiss rulings. All the leucocytes in five or ten of these fields are counted and averaged and by reference to a table gives the number per cubic millimeter. The spreads were prepared by drawing a slide over a small drop on a well cleaned cover glass. Four cover glasses were prepared at each examination. These were air dried and stained for two minutes in Dalafeld's haemotoxylin, washed and stained for thirty seconds in a one per cent. aqueous solution of fuchsin, dried by filter papers and mounted in Canada balsam. The differential counts were made with a mechanical stage using a Bausch and Lomb microscope, objective 7, eye piece 1.

Hemoglobin. The results are based on 104 examinations, 55 before labor and 49 after labor. Six different averages have been obtained for this, the same having been done for the red and white cells. The average for the first examination made was 77.7 per cent. of hemoglobin and for the last examination before labor 78.5 per cent. The average found at the first examination after labor was 68 per cent. and that for the last examination made before the discharge of the patient was 72.6 per cent. Taking an average of all counts

taken before labor and of all counts after labor gives an average before delivery of 78.5 per cent., and after labor of 72.9 per cent. The highest recorded percentage was 95 and the lowest 50. The average at term is 9.6 per cent. above that of Henderson.¹⁸ Blackwell's¹⁹ average of all examinations before labor gives only 54.2 per cent. This result was obtained from 163 examinations of New York servants who were under poor hygienic surroundings. On the other hand, Bernhard's average of 82.9 for the last count before delivery, and Finkelman's of 94.1 for the hemoglobin of all observations during pregnancy are noticeably higher than in this series. That German women in general are "fuller blooded" than American is a matter of common observation and rarely do we find one of our women coming up to the 100 per cent. of the Fleischel scale. Of the 10 cases observed before delivery 6 showed a small increase, 3 a small loss, and one no change. The color index shows only a lack of .03, so each cell is practically normal.

RED CELLS.

Average of all examinations before labor—3,713,363 per cubic millimeter.

Average of all examinations after labor—3,559,466 per cubic millimeter.

Average of the first examination made—3,722,900.

Average of the last examination before labor—3,642,857.

Average of the first examination after labor—3,211,571.

Average of the last examination made before discharge—3,706,375.

It will be seen from this that there is a decrease of 80,000 red cells with an increase of 2.9 per cent. of hemoglobin during the period between admission and labor. It is also observed that at the last examination the red cells are only 7,188

behind the first observation, while the hemoglobin is 5.1 per cent. less. This is considerably greater than in the case of the red cells, but the red cells are regenerated more quickly after labor than is the hemoglobin. The red cells and hemoglobin rose to their lowest point three days after labor, then steadily rose as long as under observation.

White Cells.

The averages of the white cells are somewhat lower than are those generally recorded.

Average of all examinations before labor—10,354 per cubic millimeter.

Average of all examinations after labor—15,359 per cubic millimeter.

Average of first examination made—9,500.

Average of last examination before labor—12,229.

Average of the first examination after labor—17,129.

Average of the last examination before discharge—12,372.

In the series no fall was noticed about the ninth day with a subsequent rise as Cabot and Henderson have described. Comparing this with a normal 7,500 per cubic millimeter gives an increase of 4,279 for the leucocytosis at term.

Stained Preparations. In counting the leucocytes, Cabot's outline was adopted, which divides them into large and small lymphocytes, polymorphonuclear neutrophils and eosinophiles.

| | | |
|-------------------------------------|------|-------|
| Small lymphocytes, 20-30 per cent.. | 13.9 | 13.45 |
| Large lymphocytes, 20-30 per cent.. | 11.1 | 11.01 |
| Polymorphonuclear, 62-70 per cent.. | 74.4 | 73.71 |
| Eosinophiles, 1/2-4 per cent..... | 1.28 | 1.81 |

Henderson is the only other observer reviewed who has done any work in the differential counting. His values are as follows for 32 cases after labor:

| | |
|-------------------------|----------------|
| Small lymphocytes | 10.8 per cent. |
| Large lymphocytes | 8.8 per cent. |
| Polymorphonuclear | 78.7 per cent. |
| Eosinophile | 1.7 per cent. |

It will be seen that the polymorphonuclear cells and the large lymphocytes are increased. The small mononuclear cells are rather below normal and the eosinophiles are slightly above the usual limit as the 4 per cent is not often reached without some cause.

The values obtained were from 25 counts taken at random from the specimens, 12 before labor and 13 after. This was done to ascertain if any changes took place in the proportion of the leucocytes shortly after labor. The counts before and after labor show very slight differences.

From a more detailed study of the individual cases I am led to believe that the blood is only slightly altered as regards the value of the red blood cells and hemoglobin in the average pregnancy. In the woman of low vitality, unable to supply the demand for increased nourishment and keep up with the increased metabolism, the generation of these two blood constituents is not rapid enough to keep pace with the enlarged sacular area and a subsequent decrease in these blood constituents takes place. In a woman of good vitality, free from constipation, which I regard a potent cause of anemia in pregnancy, taking sufficient nourishment and assimilating the same, the stimulus caused by the constant increased metabolism may result in a relatively high value of these blood constituents. In those cases where these constituents are low there is a serious dilution of the blood. The dilution is of the serum and not of the cell body as the high color index of the given cell shows, as well as the microscopic examination of the red cells which shows no hydropic degeneration or other pathological change. According to Nasse the mus-

cular tissue of pregnant dogs contains less water than that of unimpregnated animals. This may be the source of the increased fluid in the blood. The argument that a physiologic process should not alter the blood condition does not hold good, for puberty and menstruation are physiological, yet the blood of male and female children are identical till after puberty,¹⁷ when the normal count in the male becomes 5,000,000 red cells per cubic millimeter and the female 4,500,000.

That the dilution of the blood is largely mechanical is substantiated partially by the increase of blood constituents during the suppression of the menstrual periods in the first three months of pregnancy, then a gradual fall takes place often as the vascular area grows greater. This often goes on till the later months when the growth of the uterus is overshadowed by the relatively greater growth of the foetus.

As to the leucocytosis, it is fair to assume that this is due to the increased metabolism and is of toxic origin. In my cases there was no particular difference between the number of leucocytes in primiparous and multiparous cases. I have seen no explanation of the statement that leucocytosis is absent in a large proportion of multiparous patients.²⁰ The majority of reported cases do not seem to bear this out. That the leucocytosis of pregnancy is not a prolonged digestion leucocytosis, as is believed by some, is shown by the fact that in pregnancy the eosinophile cells are relatively increased while in the digestion leucocytosis they are decreased. Reider also finds, in the last months of pregnancy, a decrease of the leucocytes after taking food.

After delivery the blood constituents, in the majority of cases, are rapidly regenerated. Where the loss of blood has not been excessive the restoration is almost completely accomplished in eight to ten days. The red cells and hemoglobin do not increase side by side here because of the more rapid regeneration of red cells. In the series of cases reported the hemoglobin increased about 5 per cent. and the red cells 500,000 between labor and the discharge of the patients. This shows about twice as great a regeneration of the red cells as of the hemoglobin. The fall that takes place at labor is 10.5 per cent. of hemoglobin and 431,286 red blood cells. I believe the rapid regeneration of the blood is due not only to the formation of new cells, but also to the lessening of the vascular area by the contraction of the emptied uterus, and the subsequent transudation of the fluids of the blood. In favor of this is the fact that in cases where the child was nursed, the rise in the constituents of the blood became most noticeable at the time the milk appeared in the breasts, the reflex connection between the breast and uterus causing by the irritation of the breast a still farther contraction of the uterus and its blood spaces.

The fall of the leucocytes is due in a large measure to the lochial discharge. The interior of the uterus is simply a large wound area which discharges a great number of white cells. That the leucocytes do not return to normal during observation is due to the fact that they are intimately connected with the process of involution which goes on in the pelvic organs. In the cases reported the mothers did not nurse their infants in the majority of the cases, so the breasts were bandaged and the leucocytes in these cases had to

do also with the involution of the breasts. After all hemorrhage there is a leucocytosis, so the fall of the leucocytes after delivery is undoubtedly masked somewhat by this. That all the leucocytosis present after delivery is not due to hemorrhage is shown by the fact that a post hemorrhagic leucocytosis disappears long before the red cells have reached the point of the last count before delivery and the leucocytes are still increased.

Conclusions.

I. Where blood generation fails to keep pace with the increased vascular area a serous dilution of the blood takes place.

II. In the majority of cases this is not serious and can be overcome by simple hygienic measures, fresh air, good food and overcoming constipation if present. Cases where the vitality is overtaxed by the increased demand for nutrition may call for iron or other hematinic treatment.

III. The regeneration of the blood is partly effected by the lessening of the vascular area after labor and the subsequent transudation of the fluids of the blood into the tissues.

IV. The leucocytosis is due to the increased action of the enlarged lymph glands of the pelvis, and in part to the increased metabolism which causes a somewhat toxic condition. Its decrease is caused by the lochial discharge. The persistence is accounted for by the fact that the involution of the hypertrophied pelvic organs and breasts is accomplished in a great measure by the leucocytes.

V. A study of the blood of a woman delivered by the Caesarian operation shows the same general behavior of the blood constituents as does that of women after normal labors.

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NON-ETHICAL ETHICS.*

D. L. WALMSLEY,
Detroit.

I have chosen a non-medical and non-surgical subject, believing that at certain epochs in the history of the profession there are other subjects needing our close attention and mature consideration; subjects that are vital to the best interests of the whole profession. We have been over-indulgent and negligently unobserving of passing events which are most vital to our best interests.

While we, as a profession, are called upon to shut our eyes and seal our lips in matters professional, which is proper, we are not called upon to fold our arms, shut our eyes and blindly follow leaders without duly weighing, each for himself, and thoroughly digesting every feature of the case as applied to us individually and collectively.

In medicine, as in other walks of life, there is danger of monopoly. Circumstances and environments, policy and aggressiveness, associated in a character not overly blessed with consideration for others' woes, in the eagerness for self, is liable to overlook vital features when not pinching closely his own toes.

I am not oblivious to the fact that my task to-night, though self-imposed, is,

*Read before the Wayne County Medical Society.

nevertheless, a trying one; and if I inadvertently step on some one's foot be kind enough to remember that I am ignorant of the corn being on your toe. I regret some one more able than I had not seen it his duty to have taken my task.

I have no axe to grind, no political position to influence, no individual spleen to vent, not even a sneaking desire for a chair in one of our medical institutions; one object, and only one, have I—the betterment of our profession from an unselfish standpoint.

Ninety per cent. of the medical men of our country are general practitioners. In cities there is about 25 per cent. specialists. Of the four or five hundred or more medical men practicing in this city, only a small per cent. of them hold positions in colleges, hospitals and other institutions. Very much the same set of men also hold chairs in our colleges, monopolize the hospitals and other institutions of advantage and emolument.

You will doubtless be asking yourselves why I mention these matters in a question of non-ethical ethics. That is the question I expect you to ask. It is the vital one; upon it hangs the cause of our enquiry. Ethics is defined as "a science that treats of human actions, moral or mental, considered as right or wrong."

At least seventy-five per cent. of the medical men of the city are unassociated with the institutions of the city, and are consequently barred from the emoluments and advantages, directly or indirectly, laboring, therefore, at disadvantage, and cannot take advantage, if they wished, of benefits accruing from positions.

Now, Mr. President, there is a clause in our Association rules, called "Medical Ethics," which is supposed to govern the

acts of its members in positions and out of positions. This clause was placed in our code to regulate moral and mental wrongdoing, especially as to advertising our wares for sale, said advertising being considered unprofessional.

In our profession, as in other walks of life, there are those who are ready to take advantage if opportunity presents, and more especially if this vantage ground seems veiled by a screen. It has been apparent during the late past years that advantage of this veil has been taken by leaders in our ranks, much to the displeasure and chagrin of the helpless less favored ones. This advertising has not been of a modest type, such as one might expect among a modest class of men who hold front seats in the synagogues, but so glaring that even a half blind man might readily detect "the handwriting on the wall." This digression from ethics might, and I feel safe in saying would, have been gladly overlooked had it only occurred once, and by one person only, but it has been notorious. We should not accept even an attempt, should it be made, at hiding behind presumptuous, over-zealous newspaper men, because, had the newspaper men been warned against it by a threat of prosecution for any repetition of the offense, no further free advertising would have occurred. This kind of thing has been freely indulged in by leaders, without rebuke, and against medical ethics. An attempt to scare off the smaller fry was enacted a year or so ago, and one poor, struggling young man who indulged the example of his seniors, was brought before the tribunal and humiliated, but the leaders still continued to take advantage of the veil and screen.

Another present day violation of medical ethics is in lending our names to medical journals for advertising proprietary articles, under the caption of *writing up a case*, but the veil is too thin to hide the main object, *the proprietary*, the secondary object, our fee. While it is laudatory to earn one's living, it is dishonorable to do so in violation of an acknowledged rule governing the ethics of our profession. These are glaring violations of written and unwritten medical ethics. If we cannot be honest and abide by the rules of our profession and societies, it would be more in keeping with manliness to expurge ethics from our rules, thereby setting all at liberty and permitting each one to advertise, or not, as he sees fit. Hypocrisy should hold no place in our profession.

In olden times, in our own and other countries, it has been and is customary for medical graduates to take a solemn oath, Hippocratic, when receiving sheepskins. In the presence of witness, and with uplifted hands, under solemn invocation to the great Geomatrixian of the universe, each one thus pledged himself to keep inviolate his obligation, which begins as follows: "I will hold my master of medicine in the same rank as the authors of my being; I will share with him my fortune and, if occasion permitting, I will provide for his wants." Said oath reads: "If I keep this oath without breaking it, may it be given me to enjoy happily my life and my profession, always *honored* among men; if I violate it and perjure myself, may the contrary be my fate." This is a solemn oath, gentlemen, yet how flippantly we treat it. We have pledged our honor to share with and provide for our brother practitioner. We

have called upon high heaven to witness that if we violate and perjure ourselves dishonor among men be our fate.

Gentlemen! Are we honorable? I will let each pass judgment upon himself; but, is a rule that permits a favored few to prosper, while it condemns the mass, an ethical rule? Why find fault with your six-week post-graduate brother for dividing his fee when the leaders permit themselves, boosted by newspaper "ads." and conspicuous photography.

Gentlemen! We may frame fee lists, join protective associations, plight our pledges, submit to fines for violating rules—all will be in vain if we have not *honor*.

Four years ago this month, I think it was, I read before the Detroit Medical and Library Association a paper, entitled "Free Hospital and Lodge Practice," which was published in the "Physician and Surgeon," in which I endeavored to point out the weakness of our profession doing charity work for these institutions, and hoped and trusted the leaders would see it to be to our interest to work a change in the order of things as they then existed. Four years have passed, and no change that I know of has been made, or any attempt to right the wrong. The leaders in these institutions seem now, as then, inclined to be satisfied with their lot and their part in working for glory or surreptitious gains. Medical tactics that bolster up one part of our profession at the expense of the other is not ethical.

Hospitals are as necessary as jails and poor-houses, and the services rendered the latter are paid for. The city of Detroit, or any other city that has hospitals, could and would pay for medical services if the medical men insisted on it. The city of Detroit readily voted large sums

of money for vaccination purposes under scare of smallpox, and if thorough systematic insistence was made for pay for work done by the profession in all institutions, the money would be provided, but so long as medical men willingly work for glory they will be permitted to do so.

I would suggest that some one, at the proper time, make a motion that our Society remove from its code that clause called medical ethics, that we may not further dishonor ourselves by pretending to be what we are not.

I would also suggest a committee be appointed by this Association, whose duty it shall be to thoroughly investigate the question of hospital service with the view of improving our position; also, said committee be authorized and empowered to communicate with other cities and medical associations soliciting their aid in bringing about a paying system for medical services in all hospitals and charitable institutions.

Dr. E. L. Shurly, in his very able defense of Sanatorium treatment of Pulmonary Phthisis, read before this Association January 15th, called our attention to the degraded state of public opinion in the early part of the seventeenth century and the cruel treatment of the branded consumptive, an outcast against whom all doors were closed. Dr. Shurly calls upon our noble medical profession to awake from its transient lethargy and assume its wonted courage and philanthropy, and rescue the consumptive from the pursuit of that cruel, unrelenting foe, public opinion. The public are ever ready to take undue advantage. We see in today a tendency in public opinion and customs toward the acts of the early seventeenth century in the tendency to take undue advan-

tage of leniency by imposing upon our open door system of free service a further evidence of degeneracy of a periodical type. The medical profession of the present age have lost their hold on public opinion by want of unity as a profession. We are not sufficiently self respecting to carry weight. We have less power over the public than any other class of professional men, because we are not self-respecting and united. The public treat us with contempt. They believe in Christian Science. Laud quack remedies, deprecate our services by refusing to pay our bills because we are vacillating in our fee tariff—want of union. The judges on the bench and the legal profession scoff at our opinions in the witness-box—all this because we are weak, vacillating and dishonorable with ourselves. Is not history repeating itself? Is there not already finger-boards on the cross-roads pointing to our professional degeneracy? If the past few years can be taken as a criterion, it is not only sanatoria that our profession will need, but poor-houses.

Now it is barely possible, Mr. President, that we may right here to-night meet with opposition to our suggestion, because we are contending for right, for justice, for honor, against injustice long continued; nevertheless, we should not relax our grip on the resolution, but give it a trial. Medical journals have insinuated the advisability of some similar change, and we are not out of place, even as pioneers, moving along these lines. The more opposition we meet with, the more determined we should be to have the matter pushed to a finish, for, if any are against us they are not with us, and if not with us the cause of their opposition to our efforts for universal good indicates a nigger in the fence,

whose whereabouts should be known to us all.

In a wealthy country like this, of which we are proud, there is no just reason why medical men should give their services free, even to the poor. All other workers get paid. If there is a way of providing pay for every other worker except the medical, he, too, can and should be provided for from similar source.

The millionaires of this country are exhausting every effort to find places for their superfluous wealth. If every hospital and charitable institution requiring medical service were informed now that on and after January 1, 1904, all medical service would have to be paid for, there would be means provided and the profession be the gainer and no one be the loser, for millions of dollars would run into this channel that now are begging for library and other acceptance. Gentlemen, the trouble is not in the millionaires; the fault is in ourselves. That *assinine* principle that prevents us being a united brotherhood for mutual good is the reason why today we give our services free to hospitals and charities while everybody else is paid. So long as the majority are willing to stand idly by and let the few interested ones rule, it will be ever so.

Does the medical profession give free services to insane institutions, poor-houses, health boards, jails, marine hospitals, epileptic institutes, etc., etc.; these institutions have the poor too? No. Why, then, give free services to the others? Let me tell you why, gentlemen. A few interested ones—not interested in the poor; O, no! but in self. A few invested and combined their interests in medical schools and, the poor being necessary for clinical purposes, the hospital free service being a feeder to

their coffers, indirectly they give their services free. We know that the receipts from college professorships are not large directly, but indirectly, it tells.

Let me ask you, gentlemen, what difference it would make to the poor whether we are paid or not, so long as they don't have to pay it. When politicians are giving freely, beware! They are after the public strong box. Is there apparent resemblance between politicians and medical leaders?

When Alexandria was at her height, Herodotus tells us the profession of medicine was divided into specialties, some for the eye, others for the nose, others for the belly, and still others for the genital organs and rectum. After this subdivision of the whole the profession became degenerate. Is history repeating itself in our time? If they honored the Hippocratic oath in those days by living up to its teaching, they deserve our approval. If the degradation that followed their degeneracy is to be ours, we should be up and doing, that the dreadful consequences that befell them for degrading and perjuring themselves be not ours.

At the date of this reading we are asking the State Legislature for additional protection for the people, and had we the confidence of the rulers no opposition to so worthy a measure should or would be raised, but we lack the weight our noble profession should carry, because we have forgotten to *honor* ourselves.

The leading daily papers of our own city discredit our actions and insinuate personal motives derogatory to noble intentions on the part of leading lights in our medical institutions. Have I put it too strongly in claiming degradation and degeneracy in our profession?

"O wad some pow'r the giftie gi'e us to
see oursel's as others see us;
It wad frae monie a blunder free us and
foolish notion."

I want it distinctly understood to-night, as I did four years ago, that I am strongly in favor of the best medical schools that can be had, the best hospitals and charitable institutions; the best are none too good, but I want the medical profession to be considered at least equal in service value to the other servants who labor with them in these institutions.

I am aware, from complimentary letters received after reading my former paper on "Free Hospital and Lodge Practice" and from frequent complaints now daily heard, that general dissatisfaction exists among the profession, and I have been urged to again bring the matter before you in hope that an effort may be made to put into operation some scheme that will ultimately work for mutual benefit to us all.

In the Free Press of January 13, 1903, there appeared the annual report of Harper Hospital which, from the financial standpoint, is very gratifying, except the free medical service. It is pleasing to know that the charitably inclined have been in evidence during the year past, there having been some forty or fifty thousand dollars donated, and a surplus of several thousand dollars reported.

The only item among the expense account which we might look upon with anxious desire is the large incidental account of \$9,574. Jokingly, it might be interesting to know how much of this went for cigars for the poor non-paid medical profession?

The whole expense of the past year is less than \$75,000, a sum representing an

investment of a million and a quarter at six per cent., which amount the Morgans, the Carnegies et. al. would readily make up if they knew the medical service would be withdrawn if not paid for.

I would be unmindful of my duty as a brother practitioner if I failed to point out a fact which I believe to be true in reference to our sisters, viz., that not once have we had cause to regret non-ethical conduct on their part. Whether this laudable conduct is due to their greater loyalty to the oath, or to higher conceptions of right, or fear of exposure for wrongdoing, the fact remains the same and their example is worthy our emulation. Sisters, I congratulate you.

THE ADVANTAGES AND LIMITATIONS OF THE REST CURE.

GEO. F. BUTLER,
Alma.

The principles involved in the rest cure are as old as the time of Soranus. Almost all the psychologic principles which obtain today were outlined by this alienist, two thousand years ago. He included with moral treatment, so essential in the conditions benefited by the rest cure, baths, massage and allied procedures. The basic principles of the rest cure were worked out first in insane hospitals and later adopted by neurologists. While Dr. Weir Mitchell's name has been most associated with this treatment, and has done much to popularize it (and, it may be said in passing to render the quackish practice of it by nurses easy), still he merely applied in public what many physicians had previously done without ostentation. His con-

ception of the subject, however, was an erroneous one, based on the assumption that obesity was a sign of health. It is now generally recognized that obesity is an expression of suboxidation, and hence by itself no evidence whatever of mental or physical improvement; indeed, it may be an expression of mental deterioration, since it occurs when emotional stress fails to provoke physiologic reaction. Among the insane this has long been recognized. Careful perusal of the earlier works of Dr. Mitchell shows that he considered over-feeding of more importance than change of environment and mental and physical rest. It is obvious moreover that he failed to recognize the dangers of introspection in cases where the rest cure is indicated. The fact that the mental state in rest cure cases was injured by this subjectivity and that many disturbances of the heart, lungs and other viscera result therefrom has not been recognized by the adherents of the Weir Mitchell school, although they had been pointed out by the alienist Tissot, over a century ago. Dr. Mitchell assumed that sometimes in nervous people the activity of a normal function is competent to cause distress in other organs or to awaken unusual symptoms. He cites the case of a lady who after passing water had slight chilliness, twitching of the face and extreme palpitation of the heart; yet the act of urination is in this case painless and in fact absolutely natural. It is obvious that there is here a failure to recognize the disturbance of the general balance of the nervous system constituting health, and a tendency to attribute as reflex what is simply an exaggeration of the normal function of one organ through lessened inhibition of the central nervous system

which gives the local excito-motor ganglia full play.

Perhaps nothing better illustrates the position of the Weir Mitchell school than reference to the bladder as a cause. The bladder, through its affectability to faint stimuli, is, as Moosso and Pellacani have shown, an even more delicate aesthesiometer than the iris, and is probably the most delicate in the body. Contraction of the bladder follows directly on the slightest stimulation of any sensory nerve and all the varying conditions of the organism which raise the blood pressure and excite the respiratory centers produce an immediate and measurable effect on this organ. These reactions are much more delicate than those of the blood vessels and cannot be paralleled by any other part of the organism. The fainter vesical contractions hardly play a recognizable part in emotion, but when they attain a somewhat higher degree of intensity their influence is easily recognized. A nervous bladder, as Goodell puts it, is one of the earliest symptoms of a nervous brain. It has also been shown by Havelock Ellis that in women a full bladder tends to increased sexual excitement. It is obvious, therefore, that Dr. Mitchell put the cart before the horse in referring phenomena coincident with micturition to bladder disturbance as a cause.

The Playfair School, a badly modified off-shoot of the Weir Mitchell, has the same bias. The principles of the rest cure are to obtain mental and physical rest, and consequently increased nutrition by removal from the old environment. This is a *sine qua non* the importance of which cannot be too strongly impressed upon the physician. Mere alteration of environment, however, is not change. To take

the patient away from home is not sufficient. The visits of relatives and friends very frequently introduce the mental atmosphere of the home under which the nervous condition was born. Correspondence, likewise, is apt to occasion a home environment, since in letters people suggest this by saying too little or too much. In any event, such reticence or confidence produces introspection, increasing the worry element because of the uncertainty thereby engendered. Here, likewise, is a danger from the nurse; who, if trained in a general hospital, in an examination for symptoms, will immediately suggest these to the patient, thereby increasing the introspective tendency. The suggestion of the symptoms *per se* is not so serious as the increase of the patient's uncertainty about the mental or physical state. This influence is too often ignored in the practice of our rest cure systems. It is peculiarly apt to appear in the rest cure at home, where the patient is much more dependent on the nurse, especially where no regular medical attendant is employed. In most private non-medical rest cures this element is completely ignored. The patient, under the pretense of rest, is simply left to brood alone, and when the nurse returns the brooding has given rise to fancies and uncertainties which are either ignored, contradicted or humored. Moreover, nurses trained in general hospitals are but too apt to attempt to impress the patient with their experience by the narration of medical and surgical cases, many of whose subjective symptoms are those of the rest cure patient. Oophorectomies are narrated to women who believe themselves to be afflicted with serious ovarian difficulties. Gastrectomies are told to patients who believe that their gastric neu-

raasthenia means cancer. The prevalent mental trend of the average case requiring the rest cure, whether from the secondary consequences of organic disease, from auto-intoxication or from neurasthenia, or from all three combined, is toward introspection, as has been already pointed out.

From introspection and sub-consciousness of organ disturbance comes, as J. G. Kiernan has remarked, the nosophobia of the neurasthenic. Nosophobia is too often brutally regarded as feigned hypochondriasis, without reference to its underlying factor. Nosophobia differs from hypochondriasis in being a fear of a disease rather than a belief in its existence; hence it is more terrifying than hypochondriasis. Nosophobia, taking a special direction according to the quack consulted, has an alcoholophobiac pseudoreligious, toxicophobiac psoric, "sexual purity," testicular, uterine, "canalopath," myopath, osteopath, cylinder, catarrh kidney, vermicular or reflex basis. The neurasthenic is peculiarly liable to suggestion, as were the crowds which were "cured" by Valentine Greatrakes in the seventeenth century, and as people are now "cured" by Mother Eddy. This suggestion, however, as a rule, even in mild cases, has but a very temporary effect. It may remove a mild obsession, but the introspection and the nervous conditions behind this are not altered. The suggestion of morbid states, therefore, being in line with nosophobia, naturally has very serious results, especially since such suggestion, by its action on the heart, lungs, liver and kidneys, causes great disturbance of these organs. The action of the heart, lungs or other organs registered in the unconscious phases of the "ego" does not, as Kiernan remarks,

normally form a conscious basis of mental states; their disturbed action, by destroying inhibitions relegating them to the unconscious, raises them into the subconscious sufficiently to disturb the "ego," thereby creating conditions of anxiety, doubt, introspection, and their emotional consequences. These occur at first during sleep at the time of the lowest systemic vitality producing the distressing dreams which so often precede the phobias and obsessions of neurasthenia. The dream impression is sometimes so vivid that a hypnogogic hallucinatory process remains in consciousness, often forming later a vague delusional or false memory.

The individual who becomes conscious of the existence of a disturbed organ when in a state of nervous exhaustion, whether resultant upon organic disease, auto-intoxication, or an expression of nerve-tire, has the first basis of a distressing obsession. The nervous invalids who thus become victims of suggestion are exceedingly numerous, and the average rest cure, with its conception that rest means simple idleness, tends to develop in their most intractable direction, the very conditions it is supposed to prevent. The obsession of the nosophobiac is too apt to be regarded as a delusion. This leads either to its being humored according to the older idea of treating mental disturbance or its being ignored according to the later distorted notion. The obsession of any type is more a fear than a belief. The patient needs reassurance rather than conviction. Indeed, as a rule, it is the mingled feeling of uncertainty and the absurdity of the fear that is most distressing. This is the more emphatic because of the doubt created in the patient's mind as to mental integrity. It is on the mental side

of the rest cure that dependence should be placed for removing the state of doubt. Intellectual cultivation through reading by the nurse, and cheerful yet logical conversation by the physician on the source and character of the patient's fears is an excellent means of combatting the distressing mental condition of rest cure patients. Any system without this is worse than useless.

Among other errors prominent in the rest cure as ordinarily practiced is that of dietetics. Considering that the conditions treated by the rest cure are all of them states in which auto-intoxication is almost certain to occur, it seems strange that means are not taken to avoid these through proper dietetic rules. To say that the patient must have nourishing food is to repeat a platitude. In dietetics, as in medicinal treatment, the patient, not the disease label must be considered. That milk, as pointed out by many rest cure practitioners, is of value in many cases is undeniable; that milk in many cases, especially of gastro-intestinal neurasthenia, will cause gastro-intestinal catarrh is equally undeniable, though not generally admitted. That buttermilk will often take the place of the latter in just such cases, is certain; but none the less buttermilk is forbidden by the average practitioner of the rest cure. That radishes, cabbage, cucumbers, parsnips, egg-plant, turnips, carrots, squash, beets, sweet and Irish potatoes, as well as veal, pork, bananas and berries may, and very frequently do, undergo decomposition in the intestinal canal, with consequent fecal absorption and resultant auto-intoxication is generally accepted; yet the application of this principle in dietetics of the rest cure is exceptional. That water is needed in great

quantities in the rest cure is admitted, but the "hydrophobia" so frequent in patients is too often heeded by the physician. The necessity of hot and cold baths is recognized, but the patient's disinclination for them is generally humored by the average lay practitioner of the rest cure. Massage that simply supplies the place of exercise which cannot be taken without fatiguing the patient, since he has not only to will the exercise but also to will his will, is too often given under the pretense of some occult, magnetic, osteopathic or hypnotic influence. Any procedure given under these guises to an introspective patient, for reasons already outlined, is a positive mental and, through the results of consequent nerve-tire, physical poison. The masseur needs to be kept particularly in his own place. He is but too apt, like the nurse, to prescribe, diagnose, and give clinical lectures where he should only treat. The benefits of massage are undeniably great, but are totally offset and rendered worse than useless when massage is given by a masseur of the type described. Masseurs, moreover, have frequent perverses among their ranks. This is true equally of the males and females. Proper selection and strict supervision of masseurs and massage is imperatively necessary, cases of morbid attachments between masseurs and patients being far from infrequent. This is one great danger in the rest cure where not adequately supervised. Electricity has similar ill effects, unless the aim be clearly explained to the patient. Electricity in the rest cure is simply a delicate, localized form of exercise. While a competent, well-trained nurse may be permitted to administer it under medical supervision, its use by a nurse who has the usual ignorant concep-

tions of its power and object, is equally dangerous with massage. Slight objectively unpleasant results from electricity unexplained, give an enormous stimulus to the nosophobia of the rest cure patient. Moreover, its beneficial property irregularly applied injures rather than helps.

The medicinal treatment in the rest cure should be minimal and directed only to symptomatic indications which cannot be overcome by proper bowel, bladder, and uterine hygiene, by diet, massage, and electricity. The drenching of the patient with bromides under the assumption of treating nervous conditions with a nerve has become a dangerous abuse in the rest cure. The responsibility of this rests largely with Dr. Mitchell, although Stark, Voisin and Hammond, in Germany, France and America, had almost simultaneously called attention to the dangerous untoward effects of the bromides, it was not until thirty years after that Weir Mitchell discovered them. There is very little doubt that bromide, chloral and other drug habits are created during the rest cure.

A great deal of attention has been paid to morphine, cocaine, and allied drugs in nervous invalids, but the bromide and coal tar habits have received too little attention. Another necessity in the rest cure is that of bringing about periodic functions in the gastro-intestinal canal, both as to assimilation and elimination.

During the rest cure the stomach and bowels should be taught regular times of action. In short, the rest cure, here as elsewhere, should be viewed as a method of education of the system, not a mere therapeutic procedure.

*THE NON-SURGICAL TREATMENT OF EPITHELIAL DISEASE.

J. J. MOORE,
Farmington.

In presenting what I have to say upon this subject, I make no claim to anything original or new, either in the pathology or therapeutics of epithelial disease. I merely give my personal experience in the use of well known methods and the opinions which I have derived therefrom. Nor do I give my experience with the idea of instructing specialists or exceptionally skillful physicians or surgeons, but to contribute an atom to the common stock from the standpoint of the general practitioner. The branch of this subject which I wish to speak of is that class of ulcerations which in the beginning is merely a dirty brown discoloration—a small spot upon some portion of the face, eventually becoming thickened, and rough, a veritable scab underneath which is a raw corroding ulcer.

Whether this be cancerous or tuberculous in character, the history is practically the same,—an insidious onset, a slow but steady progress, and finally extensive, deep and extremely painful ulceration.

I have had many of these cases and almost without exception the patients have been men,—hardy farmers and laboring men of middle age and more; men who had been constantly exposed to the elements, and who cared little for protection.

*Read before the Surgical Section of the Wayne County Medical Society, Dec. 1st, 1902.

I do not recall treating any man for this condition whose occupation was indoors. So constant has been my experience in this regard that I have thought it possible that reduced vitality of the skin from exposure to the biting winds and frosts of many winters might be a contributing cause of disease.

In my hands, but one line of treatment has been effectual, viz.: Removal of the scab; application of arsenic until the diseased tissue was destroyed; then syringing with carbolic acid solution mainly for its anesthetic effect, and following this with bi-chloride syringing, and dressing with bi-chloride gauze. This treatment thoroughly and preservingly pursued has given excellent results. In but one case, that of a man above eighty years of age, has the disease returned; in this case there were three separate ulcers, in addition to which there was a scar upon the upper lip for which he had submitted to the actual cautery, and in which spot the disease eventually reappeared. One of these ulcers had eaten entirely through the side of the nose into the nasal cavity; these were all healed smoothly and without scar to speak of, and so remained for nearly two years, during which time he passed from my care. In time the disease reappeared, but owing to his advanced age and feebleness, and to the severity of the treatment, it was thought not best to pursue the treatment farther. In this case the disease is now making rapid progress.

Another case differing from these in pathological conditions, but yielding to the same treatment, came under my care ten years ago. A woman fifty-five years of age had large warty growth on nose; the growth was deeply rooted and ulceration well under way. She suffered from

severe pain, and her physical condition was bad; owing to the size of the growth and her debility, I took only a portion of it in hand at a time, but eventually removed the entire excrescence, leaving a deep cavity which was treated like any cavernous wound as before described. After several years the growth reappeared but she postponed treatment until it had again attained a considerable size. The former course was again successfully pursued, and for two years or more she has been in the enjoyment of fair health, free from pain and without disfigurement. In such cases as these I am confident that life and comfort have been prolonged. In my opinion it is the duty of the general practitioner to attack these cases at the earliest possible moment, and in the light of past experience he may hope for reasonable success with the treatment which I have outlined. In the light of the immediate future, I trust that in the X-ray has been found the long-desired cure for malignant ulcerations of whatever kind.

The Attention
of the members is invited
to the program
of the
Annual Meeting
of the
Michigan State Medical Society,
to be held at Detroit,
June 11th and
12th,
on page 1.

The Journal of the Michigan State Medical Society

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| C. K. LAHUIS, Secretary..... | Kalamazoo |
| F. A. GRAWN, Orator..... | Manistee |

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Michigan Representatives in the House of Delegates of the American Medi- cal Association

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| V. C. VAUGHAN..... | Ann Arbor |
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| J. B. GRISWOLD..... | Grand Rapids |

Member of Auxiliary Committee to Committee on National Legislation, American Medical Association

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| EMIL AMBERG..... | Detroit |
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Corps of Lecturers.

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| 1st Dist.—THADDEUS WALKER, Detroit, Laboratory Work and Diagnosis | |
| 3rd " —JAMES H. REED, Battle Creek, Genito-Urinary Diseases. | |
| 5th " —RICHARD R. SMITH, Grand Rapids, Gynecology. | |
| 6th " —MASON W. GRAY, Pontiac, Broncho-Pneumonias of Childhood. | |
| 10th " —F. E. RUGGLES, Bay City. | |
| 11th " —GEO. F. BUTLER, Alma, General Medicine. | |
| 12th " —F. MCD. HARKIN, Marquette. | |

County Societies, Branches of the State Medical Society

| County | President | Address of President | Secretary | Address of Secretary |
|---------------------|-------------------------|----------------------|------------------------|----------------------|
| ALLEGAN..... | W. H. BILLS | Allegan..... | WM. S. ALBRIGHT..... | Allegan |
| ALPENA..... | DUNCAN A. CAMERON | Alpena..... | A. J. WILKINSON..... | Alpena |
| BARRY..... | J. M. ELLIOTT | Hickory Corners..... | J. G. MCGUFFIN..... | Carlton Centre |
| BAY..... | A. E. HOYT | Bay City..... | M. GALLAGHER..... | Bay City |
| BERRIEN..... | EDWARD J. WITT | St. Joseph..... | ORVILLE CURTIS..... | Buchanan |
| BRANCH..... | H. W. WHITMORE..... | Quincy..... | J. H. ANDERSON..... | Union City |
| CALHOUN..... | L. S. JOY | Marshall..... | W. H. HAUGHEY..... | Battle Creek |
| CASS..... | WM. E. PARKER | Dowagiac..... | O. J. EAST..... | Vandalia |
| CHARLEVOIX..... | L. M. KANAGY..... | Charlevoix..... | GUY L. LARAWAY..... | Boyne Falls |
| CHIPPEWA..... | JOHN R. BAILEY..... | Mackinac Island..... | W. G. RICE..... | Sault Ste. Marie |
| CLINTON..... | M. WELLER..... | St. Johns..... | H. D. SQUIR..... | St. Johns |
| DELTA..... | DAVID N. KEE | Gladstone..... | H. W. LONG..... | Escanaba |
| EATON..... | G. B. ALLEN..... | Charlotte..... | W. H. RAND..... | Charlotte |
| EMMET..... | N. T. CALKINS..... | Petoskey..... | G. E. REYCRAFT..... | Petoskey |
| GENESEE..... | C. S. WHEELER..... | Flushing..... | H. R. NILES..... | Flint |
| GOGEBIC..... | E. H. KELLY..... | Ironwood..... | JOHN C. YATES..... | Ironwood |
| GRAND TRAVERSE..... | C. J. KNEELAND..... | Traverse City..... | FRANK HOLDSWORTH..... | Traverse City |
| GRATIOT..... | GEO. F. BUTLER..... | Alma..... | W. M. WELLER..... | Ithaca |
| HILLSDALE..... | BION WHELAN..... | Hillsdale..... | H. H. FRAZIER..... | Moscow |
| HOUGHTON..... | A. I. LAWBAUGH..... | Calumet..... | W. K. WEST..... | Calumet |
| HURON..... | A. M. OLDFIELD..... | Harbor Beach..... | D. J. MCCOLL..... | Elkton |
| INGHAM..... | SIDNEY H. CULVER..... | Mason..... | L. ANNA BALLARD..... | Lansing |
| IONIA..... | CHAS. S. COPE..... | Ionian..... | F. W. BRALEY..... | Saranac |
| IOSCO..... | H. A. GOODALE..... | East Tawas..... | F. O. THOMPSON..... | East Tawas |
| ISABELLA..... | P. E. RICHMOND..... | Mt. Pleasant..... | C. M. BASKERVILLE..... | Mt. Pleasant |
| JACKSON..... | N. H. WILLIAMS..... | Jackson..... | R. GRACE HENDRICK..... | Jackson |
| KALAMAZOO..... | A. H. ROCKWELL..... | Kalamazoo..... | O. H. CLARK..... | Kalamazoo |
| KENT..... | SCHUYLER C. GRAVES..... | Grand Rapids..... | FRANCIS J. LEE..... | Grand Rapids |
| LAPPEER..... | HUGH MCCOLL..... | Lapeer..... | H. E. RANDALL..... | Lapeer |
| LENAWEE..... | C. KIRKPATRICK..... | Adrian..... | D. L. TREAT..... | Adrian |
| LIVINGSTON..... | W. J. MCHECH..... | Brighton..... | R. H. BAIRD..... | Howell |
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| MANISTEE..... | ELLSWORTH S. ELLIS..... | Manistee..... | W. K. BRANCH..... | Manistee |
| MARQUETTE..... | J. H. ANDRUS..... | Ishpeming..... | H. J. HORNBOGEN..... | Marquette |
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| MIDLAND..... | A. D. SALISBURY..... | Midland..... | W. H. BROCK..... | Midland |
| MISSAUKEE..... | J. G. REINBERG..... | McBain..... | J. F. DOUDNA..... | Lake City |
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| MONROE..... | V. SISUNG..... | Monroe..... | GEO. T. HEATH..... | Monroe |
| OAKLAND..... | | | WM. MCCARROLL..... | Pontiac |
| O-M-C-O-R-O..... | S. N. INSLEY..... | Grayling..... | C. C. CURNALL..... | Roscommon |
| OSCEOLA..... | H. L. NOLTE..... | Reed City..... | THOS. F. BRAY..... | Reed City |
| OTTAWA..... | HENRY KREMER..... | Holland..... | D. G. COOK..... | Holland |
| SAGINAW..... | T. M. WILLIAMSON..... | Saginaw..... | M. D. RYAN..... | Saginaw |
| SANILAC..... | H. W. SMITH..... | Carsonville..... | GEO. S. TWEEDIE..... | Sanilac Centre |
| SHIAWASSEE..... | D. H. LAMB..... | Owosso..... | CHARLES SHICKLE..... | Owosso |
| ST. CLAIR..... | C. C. CLANCY..... | Pt. Huron..... | A. HENRI COTE..... | Port Huron |
| ST. JOSEPH..... | MARDEN SABIN..... | Centerville..... | JOHN R. WILLIAMS..... | White Pigeon |
| TUSCOLA..... | A. L. SEELY..... | Mayville..... | W. C. GARVIN..... | Millington |
| VAN BUREN..... | GEO. D. CARNES..... | So. Haven..... | N. A. WILLIAMS..... | Bangor |
| WASHTENAW..... | REUBEN PETERSON..... | Ann Arbor..... | J. W. KEATING..... | Ann Arbor |
| WAYNE..... | F. B. TIBBALS..... | Detroit..... | HUGH MULHERON..... | Detroit |
| WEXFORD..... | B. H. MCMULLEN..... | Cadillac..... | G. D. MILLER..... | Cadillac |

Editorial

HOSPITALS FOR SMALLPOX PATIENTS.

As a result of the recent visitation of smallpox, it has been demonstrated that this sometime highly contagious disease may be under prophylaxis (vaccination, isolation) and appropriate medical treatment robbed of its virulence and relegated to the rapidly growing class in which scientific medicine has recently placed diphtheria—diseases but slightly dangerous to the public health. Public sentiment is being rapidly educated to the expediency of observing strict quarantine regulations and the manner in which the epidemic, if such it may be called, was managed, has been the means of removing to a considerable extent a panicky state of mind heretofore existing respecting the gravity of this disease. If the visitation shall also result in stimulating the public conscience in the matter of housing and caring for smallpox patients, it will prove no less than a blessing. The example recently furnished by a public-spirited woman of Detroit in donating a liberal sum for a contagious disease annex to one of the hospitals is worthy of the highest praise and emulation. It is remarkable that wealthy citizens have not oftener directed their benefactions toward providing suitable means for the study and treatment of contagious diseases, and it is no less than marvelous that public sentiment in enlightened communities tolerates the average smallpox hospital (?). Decent provision for the treatment of smallpox patients would remove any remaining terrors respecting the disease, but the "pest house" to which such unfortunate suffer-

ers are sent is too often such in very truth. A structure placed in some remote part of the city, built of odds and ends after the soap-box fashion and architecturally of no greater pretensions, without ventilation, lacking bathing facilities, with inadequate sewerage, having no provision for the incineration of refuse, with no suitable means for sterilizing clothing and bedding, and with floors and woodwork of such a character as to render asepsis impossible, is it strange that respectable householders are wont to say they would resist at the revolver's point any attempt to remove a sick relative from home to such squalid surroundings?

The writer of this editorial knows of a city, the fame of which for its high ideals in business, its public spirit, its moral standards, and the culture of its inhabitants is state-wide, that permits the care of smallpox patients in two long, single story barracks, one of which only has been painted, this attention it having received at an earlier period when in use as a cereal factory. The flat-iron shaped grounds, destitute of trees, bordering a railroad track, a dirty sink hole filled with stagnant water, the group of buildings comprising two filthy looking outhouses leaning like the Tower of Pisa, together form a picture inexpressibly disgusting.

In all justice it must be said that members of Boards of Health are not as a rule accountable for such conditions. Indeed a strenuous effort was made by the Health Board, in the city referred to, looking to the purchase of a good, substantial brick house, favorably situated, easily convertible into a smallpox hospital, and offered at a price of \$800 more than that paid for the land on which these sties are placed, but the Solomonian Solons of the Council

"economized." It seems high time in case conditions similar to these obtain elsewhere, that physicians bring to bear a strong pressure of public opinion to the end that they may be done away with and suitable provision made for the deserving sick. A good opportunity is afforded local philanthropists also to open their hearts and loosen their purse strings to the same end.

C. B. BURR, Flint.

VACCINATION.

The need of vaccination can be seen daily by any one who cares to watch the development of cases of smallpox in Detroit. The present outbreak of the disease began on September 9, 1902, and since that time there have been 803 cases placed on record at the office of the Board of Health. Of this large number about 75 *per cent.* admit that they had *never* been vaccinated; of the remaining 25 *per cent.* about one-half claim to have been vaccinated, but upon examination no scar of successful vaccination can be found; therefore, of the entire number only about 10 *per cent.* have shown signs of successful vaccination.

Again, when we look at the location of the cases in the city, it is interesting. The outbreak was at first confined to the north-eastern (Polish) section of the city, and the patients were nearly all Poles. Early in the outbreak a systematic house-to-house vaccination was undertaken in that section (it was not extended to the entire city on account of lack of funds and refusal on the part of the Common Council to furnish funds for this purpose), and the result was that smallpox soon disap-

peared from that section entirely. There are, for example, at present 30 cases of smallpox in Detroit, and they are all located outside of the originally infected and subsequently vaccinated district. In fact, 19 of the cases are from the west side of the city; that is to say, not only outside of the originally infected district, but very remote from the same. There are now to be found on the list only two Polish families, and these are in no way connected with the earlier cases.

While it is safe to say that the "backbone of the present outbreak is broken," it is equally safe to predict that there will be occasional cases of smallpox in our midst as long as we find so large a proportion of the population unprotected by vaccination. This applies not only to Detroit but to the entire state. Smallpox is epidemic all over the United States, and the only preventive is vaccination. The sooner we can convince everybody of the truth of this statement, the sooner shall we be rid of smallpox with all of its accompanying dread and horror.

GUY L. KIEFER, Health Officer.

THE ANNUAL MEETING IN DETROIT.

The Annual Meeting in Detroit on June 11th and 12th will be one of unusual interest and of vast importance to the welfare of the Society. It is earnestly hoped that every member will deem it his duty to be present. The first meeting under the new order of things, it will be the test of the value of the work done during the year to be closed. Numerically speaking, the work accomplished has been beyond the most sanguine expectations; to date

55 county societies have been organized and chartered, representing 71 out of 83 counties of the State; and the membership has increased to more than 1,650, a gain of 1,000 new members. This showing reflects great credit upon the enthusiasm, untiring energy and unselfish devotion of the individual councilor of the district. We believe that among this number there will be found a large conservative element, who will see that the work inaugurated is for the best interest of the body politic, and will see that it is continued; will see that the County Society is fostered and encouraged.

The House of Delegates, representing equally, as it does, almost every county in the State (no other county than Wayne, which has 7, and Kent, which has 2, has more than one delegate), should reflect the sentiment of the profession. This body, to which is delegated all the power formerly held by the members in general meeting, except the election of the President, will, we believe, emphatically endorse the faithful work of the councilors during the first year of organization. Whatever action it takes should be done after careful deliberation, for it will affect the welfare of the whole profession of the State and will either give impetus to the work already accomplished or mar the ardor of the enthusiast. And it is the enthusiasm of the reformer which is needed. We believe the work of the year has shown the value of mutual acquaintance, fellowship and corporate organization, and that the best way to reach the individual member is through his County Society, where his character and record are known.

It is needless to add that everything will be done for the comfort and enter-

tainment of the visiting members. All the meetings will be held under one roof in the large Masonic Temple. The program of the meeting appears in this issue, and to it the attention of the members is invited.

County Society News.

TO THE SECRETARIES OF THE COUNTY SOCIETIES:

It is the purpose of the Editors to make the Journal interesting and valuable to the profession in all parts of the State. A certain amount of responsibility, therefore, rests upon you. Keep the Journal supplied with news and information concerning your respective Societies; send REGULAR monthly letters for publication; send papers and extracts of papers and help in every way to build up a Journal such as the Editors are hoping and endeavoring to develop.

BERRIEN COUNTY.

The Berrien County Medical Society held its regular meeting at St. Joseph, April 9. There was a good attendance and four new applications for membership were received. The opposition to reorganization is disappearing as it becomes better understood. The interest manifested at the meeting shows the physicians are in earnest, and the society under the new regime is sure to win.

Dr. Robert Henderson, of Buchanan, read a most interesting paper on "How the Physician is Impoverished."

Dr. M. May Beers, of St. Joseph, presented a fine paper on "Ectopic Pregnancy," and cited a case occurring in her own practice. The doctor was complimented on her early diagnosis in the case and saving life by proper surgical procedure. Both papers were fully discussed by the society.

Dr. Orville Curtis was elected Secretary for remainder of the current year.

The next meeting will be held in June. Place to be determined later.

C. N. SOWERS, Acting Secretary.

EATON COUNTY.

Regular meeting of the Eaton County Medical Society was held at Charlotte, April 30. Program:

1. Call to order.
2. Reading minutes of previous meeting.
3. Petitions for membership.
4. Unfinished business.
5. Election of members.
6. New business.
7. Paper: Prognosis and Treatment of Lobular Pneumonia, Dr. Chas. D. Huber.
8. Discussion of Dr. Huber's paper.
9. Presentation and report of cases with general discussion.
10. Adjournment.

W. H. RAND, Secretary.

JACKSON COUNTY.

The Jackson County Medical Society met at Jackson, April 7th. The following papers were presented at the meeting:

- Artificial Infant Feeding—Dr. D. E. Robinson.
 Discussion—Dr. C. H. Lewis, Dr. A. J. Roberts.
 Alcoholic and Tobacco Amblyopia—Dr. Fleming Carrow, Ann Arbor.
 Discussion—Dr. A. E. Bulson, Dr. J. F. Wesch.
 Light and Its Therapeutic Uses—Dr. J. T. Main.
 Case of Bilateral Cystic Kidneys with Autopsy—Dr. F. W. Rogers.

Resolutions were passed endorsing the Nottingham and Denby bills.

R. GRACE HENDRICK, Secretary.

KALAMAZOO COUNTY.

A joint meeting of the Kalamazoo County Medical Society and Kalamazoo Academy of Medicine was held April 7th, in the Academy of Medicine rooms in the public library.

Dr. P. T. Butler, of Alamo, addressed the meeting on the subject of "Vaginal Hysterectomy."

Dr. A. Hochstein presented a paper on "Some Phenomena in Lesions of the Heart: Their Diagnostic and Prognostic Significance."

Dr. R. E. Balch demonstrated later methods in intestinal anastomoses.

After reading and discussion of papers the annual election of the county officers was held.

Dr. O. H. Clark in chair.

Dr. A. H. Rockwell was elected President for the ensuing year; Dr. F. S. Collier, of Vicksburg, First Vice-President; Dr. F. J. Welch, of Kalamazoo, Second Vice-President; Dr. O. H. Clark, Secretary-Treasurer. Censors for three years—Drs. S. B. Snyder, R. E. Balch, Kalamazoo; Censors for two years—Drs. E. H. Campbell, C. K. La Huis, Kalamazoo; Censors for one year—Drs. J. H. McKibbin, E. P. Wilbur, Kalamazoo; Delegate to represent the society in the House of Delegates of the State Society, Dr. Adolph Hochstein, of Kalamazoo.

The clause in the by-laws relative to the time when the annual meeting is to be held was changed from April to the month of December.

Hereafter the annual meeting will be held in December of each year.

O. H. CLARK, Secretary.

LAPEER COUNTY.

Abstract of paper on NEURASTHENIA read by WM. J. KAY, Attica, before the Lapeer County Medical Society, Jan. 8, 1903.

Dr. Kay has seen lately many cases of neurasthenia in his practice that caused patients and friends great anxiety and himself much worry.

Neurasthenia is a general or systemic disease, having for its basis an inherited or acquired weak nervous organization and a constant irritating agent, which may be within or without, applied long enough for the nerve cells to acquire an abnormal reaction to normal stimuli. Fatigue to a greater or less extent is the distinctive symptom. The neurasthenic is irritable, nervous, sleepless, lacks ability to concentrate attention for any considerable length of time, not always low spirited; in mild cases they alternate from the mountain top of exaltation to the lowest valley of despair. Pulse is rapid, generally of lessened tension, easily affected by such efforts as moving in bed. His experience has been that tenderness along the spine has been of the skin rather than of the deeper nerve structures. Such symptoms as constipation, lessened urine, coated tongue, nervousness, etc. indicate that the engine is being worked under low pressure. Mucous enteritis is a common symptom; an inherited weak, nervous organization and auto-intoxication are the causes that cover a majority of the cases.

In hysteria the contractures, the seeming increase of vigor, at least absence of fatigue, will differentiate. In the beginning of some of the dyscosis it is almost impossible to differentiate.

The hypochondriac is afraid of the disease he is going to have. If certain drugs like arsenic, strychnine and veratrim will cause changes in the structure of the neuron, it is fair reasoning that profound changes take place in the neuron cells from some of the ultra-violent poison that may be generated in the human body.

Treatment requires tact; carefully study the surroundings, the personal history and the most trivial circumstances, keeping in mind whether the weak, nervous organization or the irritant is the predominating factor; rest, the degree depending upon the severity of the case; stimulation of the excretory organs; the kidneys by rectal saline solutions, and a light diet at first. Bitter tonics as condurango, compound tincture of gentian, phospho-albumin, cod-liver oil, all have their place. An increase of flesh does not mean recovery. The systematic use of water, aerated, carbonated, externally or internally, help to carry off the poisons of defective metabolism. Suggestion is of some importance. "How beautiful upon the mountains are the feet of him who bringeth glad tidings." Do not expect success in treating disease of the nervous system if you are without hope yourself. If you tell him he will sleep tonight, it is best to make sure he will with a dose of codein or trional. The physician who finds it necessary to scare his patient to lend an additional glory to his marvelous cures has missed his calling or at least should not have to do with the nervous.

Abstract of paper on VACCINATION, read by JNO. V. FRAZIER, Lapeer, before the Lapeer County Medical Society, Jan. 8, 1903.

Frazier's paper shows the advantages of vaccination by contrasting smallpox before and after the discovery of vaccination by Jenner.

Of all the destroyers of life of any nature none he thinks has been more dreaded in the past centuries than the once awful scourge of smallpox. The terrible ravages of the disease in England at the beginning of the 18th century when nearly one-fourteenth of the population died from this disease, increased to one-tenth of the population at the end of the century. In Mexico it suddenly destroyed 3,500,000 of the population, leaving none to bury them. When Jenner made his great discovery, not new as to method, but to source of virus, he had to meet opposition, medical and clerical, mistatement and misrepresentation, and we who are living to-day are reaping the benefit of his courage. The opposition to vaccination is made by the "arm chair general." Every physician should have facts and statistics at his tongue's

end to silence any doubter, be he layman or M. D. He points out the fact that chloroform causes seven times more deaths than vaccination; yet who would think for a moment of giving up chloroform until something better was known. To determine the value of vaccination the following method may be used: 1. By observing the frequency with which smallpox attacks the vaccinated and the unvaccinated. 2. By observing the severity of the attack in the vaccinated and the unvaccinated. Jenner's method was to vaccinate and then inoculate with smallpox and in six thousand cases he failed to produce smallpox. Authority after authority, statistics after statistics, military, naval and service reports all point to the undisputable fact that vaccination does protect from smallpox.

The following is the program of the meeting of the Lapeer County Medical Society held at Imlay City, Wednesday, April 8th:

Cirrhosis of the Liver—Wm. Blake, M. D., Lapeer.

Discussion opened by Frank A. Tinker, M. D., Lapeer.

Treatment of Internal Hemorrhage—C. A. Wisner, M. D., Columbiaville.

Discussion opened by Geo. W. Jones, M. D., Imlay City.

Puerperal Convulsions—A. Price, M. D., Almont.

Discussion opened by S. A. Snow, M. D., North Branch.

Exophthalmic Goitre, Peter Stewart, M. D., Hadley.

Discussion opened by O. J. Thomas, M. D., North Branch.

Is Appendicitis on the Increase?—J. S. Caulkins, M. D., Thornville.

Discussion opened by T. D. Keillor, M. D., Clifford.

H. E. RANDALL, Secretary.

MONTCALM COUNTY.

The Montcalm County Medical Society held its first quarterly meeting at Lakeview, April 7th. There was a good attendance, and all enjoyed an interesting meeting.

There was a good clinic furnished by near-by physicians, and three excellent papers read. Dr. L. S. Croster, of Edmore, read a short, crisp paper on "Certain Skin Diseases." Dr. L. S.

Griswold, of Big Rapids, gave one on the "Differential Diagnosis of Certain Pelvic Diseases," and Dr. Geo. F. Butler, of Alma, read one on "Chronic Nephritis." These were all well discussed.

The Society passed the following resolutions:

First—Favoring the establishing of a State Sanatorium for Consumptives.

Second—Favoring the passage of the Nottingham bill.

Third—Favoring that legislation which authorizes the State Board of Health to designate those communicable diseases which are dangerous to public health.

The next meeting will be held in Stanton, July 1st.

H. L. BOWER, Secretary.

OSCEOLA COUNTY.

The Osceola County Medical Society held its annual meeting at Reed City. The following officers were elected: Dr. H. S. Nolte, Reed City, President; Dr. J. W. Newcomb, Reed City, Vice-President; Dr. Thos. F. Bray, Reed City, Secretary and Treasurer; Delegate to State Society, Dr. T. F. Bray, Reed City.

The following resolution was passed: That this society urges, through the representative of this district, the passage of the Nottingham bill, copy of same to be forwarded to representative.

THOS. F. BRAY, Secretary.

ST JOSEPH COUNTY.

OBSTETRIC ANTI-SEPSIS.*

AARON FLOYD KINGSLEY.
Centerville.

As you will note, the subject of this paper presupposes the presence of sepsis, or its source, pyogenic bacteria, in all obstetric operations. Owing to the nature of the field, the continued presence of micro-organisms, and the extreme difficulty of their complete removal, even under much more favorable conditions, it must ever be so.

Therefore the obstetrician must always bear in mind that sepsis is possible, and I believe if he says probable, he will not be stimulated to too great caution. Any extra precaution we take,

*Read at meeting of the St. Joseph County Medical Society, held at Mendon, Feb. 10, 1903.

if it gives the patient one degree better chance to avoid unnecessary complications at this critical period when her vitality is often at its lowest ebb, and when her natural resistance is so materially lessened, she has a right to demand of us.

To attempt a delivery without complying with the rules of antisepsis is, in my judgment, criminal and I believe it is so held by the courts. A patient may be given a judgment should puerperal sepsis occur after such negligence on the part of her attendants. Legally we are not required to insure any results, but we are required to employ ordinary skill in treating every case. This may be construed to include antiseptic precautions in obstetric practice.

I think all will admit that absolute sterilization of the field of operation is practically impossible. Let us consider how we may render it as aseptic as possible.

The presence of the pubic hair, the abundant secretions of the glands, both of the skin and mucous membrane, together with the warmth of the body, and the repeated soiling of the parts when urine is voided, afford abundant pabulum and favorable conditions for the development of pyogenic bacteria, and that they are always present no one will attempt to deny.

What means have we at hand whereby they may be destroyed, removed or rendered inert?

I. *Chemical*—Heading the list of chemicals, I think you will all agree, is bichloride of mercury, and oil of mustard is a close second. The first it said to inhibit germ growth in solutions of 1:300000, and oil of mustard 1:33000, while potassium permanganate is said never to completely inhibit, and carbolic acid must be not less than 1:850. But it is not inhibition we desire, but complete asepsis, or as near that as possible. Inhibition without destruction is far too uncertain for us to rely upon when the life or at least the future health and happiness of two patients is at stake. The foregoing ratios were obtained by careful laboratory experiments, but are not applicable to actual practice, for they make no allowance for the presence of so many conditions which prevent the activity of any germicide, such as precipitation, dilution or mechanical inability to reach the germs. Bichloride is an extremely valuable agent when properly used, but to be efficient it must be in not less than 1:2000 solution and owing to its toxicity and irritating effects it is not an ideal for obstetric practice and should, if employed, be carefully removed after each application, so absorption and subsequent intoxication of the patient will be avoided.

Oil of mustard, best applied in mustard flour, is excellent for sterilization of the hands of the operator or his assistants, but it must be thoroughly removed to avoid results unpleasant to the patient.

Carbolic acid is of little value unless used in very concentrated solution, and the pungent odor of the solutions conveys an idea of security which the actual amount of phenol present will not insure.

The list of proprietary antiseptics is daily lengthening and of these agents, though there are many of greater or less efficiency, yet I shall mention but one, which has secured a well merited right to our consideration. This is a preparation of neutral soap, water and cresol; contains fifty per cent. of free cresylic acid, and is known as Lysol. The expense of this article has previously proven an argument against it, but now that is removed, as it can be obtained for sixty cents per pound. The Maine State Board of Health, commenting upon Lysol, says: "It is undoubtedly more efficient than carbolic acid; disinfection of the hands is assured by using a one per cent. solution without the previous use of soap; a one-fourth per cent. renders instruments sterile and does not attack the instruments. It is eight times less poisonous than carbolic acid and much less so than sublimate." This appeals to me as an ideal antiseptic for use in obstetric practice, being applicable for use upon the genitals of the patient, the hands of the operator and his assistants, and also the instruments, with a minimum of danger of toxic effect. Although scores of other chemical antiseptics of greater or less value are urged upon us frequently, yet I think sufficient has been said, believing as I do that it is better to select one or two which are reliable, and cling to them, leaving all attempts at experiment to others.

II. Mechanical—Now let us consider the second means at hand, and this one I believe is the more important of the two and the one to which I should anchor my dependence had I but one at my disposal. The value of plain, hot water and plenty of any good soap—preferably castile—when vigorously applied with a stiff brush, must not be lightly estimated, in any attempt at antiseptics. Chemical germicides are valuable indeed, but it is absurd to depend upon any of them protecting against infection, simply because one has been used in copious amount. Just as well to expect yeast to "leaven the whole lump," because the housewife has a whole package in the cupboard, yet never mixed any with the flour. We

know how prone bacteria are to hide themselves away in the recesses of the epidermis, and in the mouths of the gland ducts, both of the skin and of the mucous membrane. Then the secretions envelope them and they are very secure. To root them from here we must use our best endeavor, and nothing is more efficient than thorough scrubbing. By this I mean not so vigorous an application as would break the skin and thus open new avenues for infection, but sufficient to remove the accumulated secretions, and the outer layers of the epidermis, for we know that this same outer layer is the natural habitat of at least one pyogenic-organism—the staphylo-coccus epidermidis albus—and we have no way of knowing how many others may have been deposited there. Very much can be done to reinforce the mechanical method and render it more efficient. Since this seems to include parts of both the before-mentioned methods, I have styled it the combined methods, which I will now proceed to describe.

III. Combined Method—Let me describe this as applicable first to the hands of the operator, then to the field of operation.

The hands should be thoroughly washed with hot water—as hot as can be borne—and plenty of soap, scrubbing vigorously with a brush which has been previously sterilized either by boiling, or by immersion in a one per cent. Lysol solution. Particular attention must be paid to the regions under and around the nails. Now the nails should be carefully cleaned to remove any fatty deposit that may have escaped, and again scrubbed. Then wash the hands and scrub them well in a one per cent. Lysol bath, and afterward in a fresh bath of the same. This completes the sterilization of the hands. Do not dry them on a towel or anything else. Contamination is too easily accomplished thereby.

If bichloride is employed instead of Lysol it should be a solution of 1:1000. Every trace of soap must be removed by thorough rinsing in plain water before the bichloride is applied, else the mercury will be precipitated and rendered inert. The antiseptic must be completely removed also before we examine the patient.

It is probably the office of the trained nurse to prepare the field of operation, but with many of our patients we are denied this luxury, and must depend upon our own ability. Even when a trained nurse is present, it is well to be able to *direct* her efforts, and we must *know* that she has done her work well, for our patients expect equally good results in any case, and are ever ready to charge to the physician any irregularity which

may occur. The patient, having had a thorough bath, is clad in a clean nightdress and put into a clean bed, protected by some non-absorbent to prevent its being soiled. Plenty of hot soap suds is now applied to the pubes, genitals and thighs of the patient, washing these parts thoroughly and finally clipping the pubic hair. Some advise shaving the parts, but most patients object to this, and, too, I believe it inadvisable because of the discomfort it gives the patient when the hair again begins to grow. Now the parts are thoroughly bathed with one per cent. Lysol solution. This completes the toilet of both the patient and the attendants, unless there is reason to suspect gonorrheal infection, when I would advise the use of a bichloride douche of about 1:2000, preceded and followed by a copious douche of plain sterile water. After this the canal may well be lubricated with sterile vaseline or olive oil, to replace so much as possible the natural lubricant which has been removed.

All instruments, ligatures and sutures should be sterilized by boiling, and their asepsis maintained by placing in a dish of Lysol solution until needed. This is preferable to a sterile towel, for continued antisepsis is better, I believe, than simply the inert asepsis of a sterile towel.

One thing more concerning the mother. Should the perineum become soiled by feces, cleanse it well with any strong antiseptic, but preferably bichloride of mercury 1:500, wiping away from the vaginal orifice.

Now, before we have completed our obstetric operation, another individual has appeared, and we must extend our antisepsis in this direction. Usually it will be confined to caring for the stump of the umbilical cord. The ligatures we have used have, of course, been sterilized as described, and we believe we have not soiled the navel by bringing in contact with it dirty hands, and now we must maintain this asepsis by careful dressing. Just here let me recall the principle of bacteriology, that moisture favors germ growth and developments while its absence inhibits the same. This being true our duty is very plain, to apply a dry dressing which has been previously sterilized. This I accomplish by placing the stump of the cord between two layers of absorbent cotton, then covering with a dry dusting powder consisting of equal parts of bismuth sub-nitrate, boric acid and lycopodium. I instruct the nurse to exercise great care when bathing the child, not to wet this dressing or disturb it at all, unless the navel should become inflamed, until the stump separates. I have never had a case of infected umbilicus following this treatment.

One thing further about the child. If we have reason to suspect gonorrhea in the mother, the child's eyes should be carefully cleansed immediately with a saturated solution of boracic acid. Then instil into each eye a few drops of a one per cent. solution of silver nitrate, and at once neutralize with some sodium chloride solution. This silver application should be made once daily until the danger of ophthalmia neonatorum is past.

Now I realize that all I have said is not applicable to every case. A certain number of cases we never see until we arrive at the bedside after labor is well advanced. As to the cause, let me say that it is our duty to do just so much as we can, always bearing in mind that it is the welfare of the patient which we must consider and not our own personal convenience.

TUSCOLA COUNTY.

The Tuscola County Medical Society met at Caro, April 13th. Dr. Peter J. Livingstone, of Caro, was elected delegate to the State meeting in June. The president, Dr. A. L. Seeley, Mayville, gave a fine address at the opening of the meeting and the following papers were read and discussed: "Some Cases of Scarlet Fever," C. W. Clark, Caro; "Diseases of the Heart Complicating Pregnancy," P. J. Livingstone, Caro; "Nervous Dyspepsia," L. M. Ryan, Caro; "The Treatment of Lobar Pneumonia in Children," R. L. King, Caro; "The Inhalation Treatment of 'Colds' in Children," W. C. Garvin, Millington. Five new members were received and a banquet was held in the evening.

W. C. GARVIN, Secretary.

VAN BUREN COUNTY.

The Van Buren County Medical Society met in the South Haven Club Rooms, South Haven, Thursday, April 30, 1903. The following is the program:

MORNING SESSION.

10:30 A. M. to 12 M.

General Routine of Business.

AFTERNOON SESSION.

Paper.....Dr. E. L. Mater, South Haven
Intestinal Hemorrhage in Typhoid Fever.

Paper.....Dr. J. R. Giffen, Bangor
Cardiac Hypertrophy.

Paper.....Dr. J. Murphy, Bangor
The Giving of an Anaesthetic.

N. A. WILLIAMS, Secretary.

WASHTENAW COUNTY.

The Ann Arbor Medical Club met Tuesday, April 7th. The following is the program of the meeting:

Exhibition of Patients.

Reports of Cases.

Demonstration of Specimens.

Hydatids of the Liver—A. H. Ferguson, M. D., of Chicago.

The Discussion opened by C. B. Nancrede, M. D., of Ann Arbor.

J. W. KEATING, Secretary.

WAYNE COUNTY.

MARCH PROGRAM.

GENERAL MEETINGS.

March 5—Clinical and Pathological Evening.

March 12—A Decade of Progress in Abdominal Surgery.

"Surgery of the Stomach, Pancreas, Gall-bladder and Liver," by Dr. H. O. Walker.

"Surgery of the Intestines and Appendix Vermiformis," by Dr. Wm. F. Metcalf.

"Surgery of the Pelvis," by Dr. W. P. Manton.

March 19—"The Dispensing Problem," by Dr. W. J. Wilson, Jr.

"Antistreptococcic Serum in the Treatment of Inflammatory Rheumatism and other Diseases, with Report of Cases," by Dr. G. H. Sherman.

March 26—"Diagnosis and Treatment of Tubercular Kidney," by Dr. Ramon Guiteras, of New York.

SECTION MEETINGS.

March 2—Surgical Section. "Empyema of the Gall-Bladder Due to Gall Stones," by Dr. H. R. Casgrain, of Windsor, Ont.

March 9—Internal Medicine and Pathology.

"Hemolysis and Preceptus with Demonstrations," by Dr. A. H. Gorenflo.

March 16—Obstetrics and Gynecology.

"Placenta Prævia: Its Causes and Conditions," by Dr. Homer E. Safford.

"Management of Placenta Prævia," by Dr. James Samson, of Windsor, Ont.

March 23—Eye, Ear, Nose, and Throat.

"The Oral and Facial Deformities Associated with Occlusion of the Upper Respiratory Tract," by Milton T. Watson, D. D. S.

At the meeting of March 5, some amendments to the Constitution were proposed, chief among

which is the method of election. The amendment provides that nominations shall be made at the second meeting in May, and that election shall occur at the last meeting in May. All ballots are to be polled, and a majority vote is necessary to elect.

HUGH MULHERON, Secretary.

MEETING OF THE STATE BOARD OF HEALTH.

The Michigan State Board of Health met in regular session in the Capitol, Lansing, April 10, 1903. The members present were: Hon. Frank Wells, President; Victor C. Vaughan, M. D., Ann Arbor; Hon. Henry A. Haigh, Detroit; Collins H. Johnston, M. D., Grand Rapids, and Henry B. Baker, M. D., Lansing, Secretary.

After the auditing of bills and accounts and the disposal of much other routine work, the President gave his annual address, some of the subjects upon which he spoke being as follows:

The subject of rabies, now epidemic in Michigan, and the work of the board for its restriction and prevention, were reviewed at some length, circulars of information and forms of regulations requiring the muzzling of all dogs at large having been sent to each of the sixteen hundred local boards of health in the state. While consumption has decreased during the year, there has been a great epidemic of smallpox, and the office of the board has been putting forth every effort to stamp it out, meeting with great opposition because of the mildness of the disease and its not being reported or considered as smallpox. During the year two sanitary conventions have been held, one at Pontiac and the other at Cheboygan. There was also a successful conference of Michigan health officials at Ann Arbor. The President regarded that annual conference as very important. Being held in Ann Arbor, where the State Laboratory of Hygiene is, the best papers and discussions possible can be secured. The health officers get in touch with each other and with the new ideas and facts in sanitary science, and new zeal is inspired in them. Three meetings of the Board for the examination of embalmers for licenses were held—at Lansing, Escanaba, and Battle Creek; and a large number of applicants were examined. The term of office of two of the members of the board had expired. C. M. Ranger, of Battle Creek, was appointed to succeed Dr. Belknap, of Benton Harbor, and Mr. Wells, of Lansing was reappointed. Concerning much needed

public health legislation, desired to be secured from the legislature, the report was unfavorable, because the bills are not reported out by the public health committees to which they were referred by the legislature. Two measures, regarded by him as of the greatest importance in the interests of the public health, are the one to establish a State Sanatorium for Consumptives, and the one to authorize a competent tribunal to define what are the dangerous communicable diseases. At a very good public hearing on the Sanatorium bill a strong showing was made, convincing some members of the legislature of the great importance of the measure. Having spent the winter in California and the west, and made a study there of the sanatoria for consumptives, Mr. Wells gave a short account of them, including the Espairanza, near Pasadena, giving details and methods of the fresh air mode of treatment. All of the patients are promptly improved and the treatment is remarkably successful. With a proper sanatorium, the same results might obtain in Michigan.

Hon. Frank Wells was re-elected president for the next two years, which office he has held for ten years.

Dr. Vaughan reported as a special committee on rabies. He stated that two or three years ago rabies was very prevalent in New York, and it gradually spread partly through Ohio into Michigan. The first case here under his observation was near Ypsilanti, where a man died of the disease. From that time, rabies has spread to every part of the lower peninsula of Michigan, and is now very prevalent among cattle, hogs, and other domestic animals. Many dogs and children have been bitten, and one child died of the disease at Saginaw. At the recent meeting of the Board of Regents of the University, Dr. Vaughan recommended that a Pasteur institute be re-established at the University, which was done. There are already six patients being treated there, five of whom were bitten by dogs known to be infected with rabies. It takes three weeks to treat patients. Residents of Michigan are treated free of charge, but their room and board are not supplied by the University free. The doctor thinks the \$2,500 which the University appropriated to maintain the institute for a year is money well invested. The loss in Michigan from cattle alone has already been several thousand dollars. The laboratory has been applied to for virus with which to treat animals as well as persons.

Secretary Baker mentioned that the child in Kalamazoo county, bitten by a rabid dog and sent to the Pasteur Institute at Chicago, is reported as still free from the disease.

The pamphlet on the restriction and prevention of measles was amended, and 11,000 copies ordered printed for distribution in infected neighborhoods. The same number of copies of the printed slip "Instructions to Consumptives and Their Friends," was ordered printed.

Dr. Vaughan was appointed a delegate to attend, for study of public health subjects, the meetings of the American Medical Association, May 5-8, 1903, the American Academy of Medicine, May 11, and the American Association of Physicians, May 12.

The Board decided to hold examinations of undertakers for embalmers' licenses June 10, 1903, at Lansing, and July 17, at Grand Rapids. Applications will not be received later than ten days before each examination.

Obituary

EDWARD W. JENKS, 1833-1903.

Edward W. Jenks was born in Victor, Ontario County, New York, in 1833, the son of Nathan and Jane Bushnell Jenks. His father was of Quaker descent, a leading merchant in Victor for many years. He became the purchaser of large tracts of land in Northern Indiana, particularly in La Grange County where he laid out the village of Ontario. In 1843 he removed there with his family and established the La Grange County Collegiate Institution.

At this institution Edward W. Jenks received his earlier school training. He began the study of medicine in the Medical Department of New York University, 1852, but his health failing him, was obliged to return home.

In 1855 he graduated from the Castleton (Vermont) Medical College, and immediately proceeded to New York to carry out his long cherished purpose, but, after remaining with the University for about a month, he found himself so much enfeebled by long confinement that he followed the advice of friends and returned home. He was soon employed in country practice.

From 1853 to 1864 he was engaged in the practice of medicine in Indiana. In 1864 he received an aduendum degree in the Bellevue Hospital Medical College, of New York. During the same year he removed to Detroit.

For four years he was one of the editors of the Detroit Review of Medicine. In 1868 he was one of the founders, and was elected Professor of Obstetrics and Diseases of Women, and President of the Detroit Medical College. He held

the chair of Surgical Diseases of Women in Bowdoin College (Maine), lecturing in that institution each year during the spring months after the close of the college session in Detroit. He resigned in 1875, owing solely to the labor it involved.

He was for many years surgeon in the Department for Diseases of Women in St. Luke's and St. Mary's Hospitals, and Consulting Surgeon at the Woman's Hospital, in Detroit. From its organization to his resignation, in 1872, he was one of the physicians of Harper Hospital. For several years he was surgeon-in-chief of the Michigan Central Railroad, and President of the Michigan State Medical Society in 1873. He was also President of the Detroit Academy of Medicine.

He was an honorary member of the Maine Medical Association; Ohio State Medical Society; Toledo Medical Association; Cincinnati Obstetrical Society; Northwestern Medical Society, of Ohio, and several minor organizations; corresponding member of the Gynecological Society, of Boston; fellow of the Obstetrical Society of London, England; an active member, and one of the founders, of the American Gynecological Society; member of the Wayne County Medical Society; member of the State Board of Corrections and Charities; member of the American Medical Association; the American Social Science Association; the American Institute of Arts, Science and Letters; in 1878 he was chairman of the Obstetrical Section of the American Medical Association.

In 1879 Albion College conferred upon him the honorary degree of LL. D. In the same year he was selected to fill the chair of Medical and Surgical Diseases of Women, and Clinical Gynecology, of the Chicago Medical College.

He removed to Chicago in 1879. His health now became impaired, and in 1882 he resigned his position with the medical college. In 1884 he returned to Detroit, where he had since resided.

While Dr. Jenks had been successful as a general practitioner, it is in the departments of obstetrics and gynecology that he has devoted especial attention, and in these departments he had gained a national reputation as a skillful operator, teacher, and author. His numerous articles on these subjects remain widely circulated, and are considered valuable additions to medical literature.

Among the most important of these contributions may be named: The Use of *Viburnum Prunifolium* in Diseases of Women: Cause of

Sudden Death of Puerperal Women; Perineorrhaphy, With Special Reference to Its Benefits in Slight Lacerations and Descriptions of the Mode of Operating It; On the Postule Treatment of Tympanites and Intestinalis Following Ovariectomy; On the Relation of Goitre to the Generative Organs of Women; Atresia; The Treatment of Puerperal Septicaemia by Inter-Uterine Injections; The Practice of Gynecology in the Ancient Times; Coccygodynia; New Mode of Operating in Fistula in Ano; Report of Successful Case of Cæsarian Section After Seven Days' Labor; Contribution to Surgical Gynecology. He was also one of the contributors to Pepper's System of Medicine; Articles for the System of American Gynecology. He has also been a contributor to the Physicians' Leisure Library Series on Disorders of Menstruation.

He was first married in 1857 to the daughter of J. R. Darling, of Warsaw, New York, who died soon after his removal to Detroit. In 1867 he married Sarah R. Joy, the eldest daughter of the deceased James F. Joy, who died in 1900. He had two children: Miss Martha R. Jenks and Dr. Nathan Jenks.

Dr. Jenks died March 19, 1903, while on his way home from Mexico.

PETER KLEIN, 1813-1903.

Dr. Peter Klein, one of the best known German physicians and residents of Detroit, died March 15th.

Dr. Klein had an interesting and busy life. He was born at Oermingen, canton of Saar-Union, department of the Lower Rhine, Alsace, France, on September 12, 1813, and was the second son of Frederick and Eva Klein, who conducted a farm in Alsace. His father died when Peter was seven years old, and later the widow married again and they determined to come to America. They sailed from Havre de Grace on the brig *Globe*, and were en route 88 days, arriving at New York in the fall of 1828. The family settled on a farm six miles from Buffalo, but Peter Klein soon became tired of an agricultural life, and left home with a neighbor's boy having only 75 cents in his pocket. They went to Buffalo, where Mr. Klein decided to adopt the profession of a physician. He studied for four years in Buffalo and later studied medicine and practiced his profession at Buffalo, Rochester and St. Catharines, Ont. In the winter of 1844 Dr. Klein matriculated in the medical department of King's College, Toronto, Ont., graduating in 1846. Immediately afterwards

he opened an office at Detroit and practiced medicine to within a few years of his death, being very successful.

Dr. Klein was a prominent member of the Wayne County Medical Society; the State Medical Society and the American Medical Association. In 1847 he was county physician. From December, 1863, to May, 1866, Dr. Klein was in the United States army service, being army surgeon in charge of the Exchange Barracks, at Detroit. In 1869 and 1870 and from 1875 to 1876 he represented Wayne county in the lower house of the legislature.

In the year 1854 a joint stock company was organized when the Michigan Volksblatt was established to represent the German Democrats of the city. Dr. Klein assumed entire charge. It was through his efforts that success came to the paper at that time. Later he sold out his interest. Deceased was a Jeffersonian Democrat, a Mason and an Oddfellow. He was a member of Union Lodge of Strict Observance, No. 3, Free and Accepted Masons, for fifty years and attended the fiftieth anniversary celebration of this organization a year ago last January. On October 29, 1853, he was married to Miss Sevilla Damaret, of Odense, Denmark. He leaves a widow and several grandsons and grandnieces.

WM. B. TOWN, 1830-1903.

The death of Dr. Wm. B. Town, of Geneva, Lenawee County, occurred recently at his home in Rollin township. He had been ill for several years, the immediate cause of death being dropsy and heart disease. He was one of the most prominent men in that section and had long been interested in affairs of a local and state nature.

Dr. Wm. B. Town had lived on the old homestead, on the shores of Round lake, nearly all his life. He was born at Norwich, Ontario, Canada, July 23, 1830.

Dr. Town attended school at Jackson during winter season and commenced reading medicine under Dr. H. Powers, of Rollin, when 21. He took a two years' course in the Medical Department of the University of Michigan and commenced practice at Geneva, at Round lake, where by conscientious work and attention to business he built up a lucrative practice.

He took a great interest in local affairs, serving in local offices, and for seventeen years was postmaster at Geneva. He was school director for seven years, and in 1884 elected a member of the

state legislature on the Democratic ticket. During his work in the legislature he served on many important committees, especially those concerning public health and the Industrial Home for Girls.

October 27, 1853, he married Miss Elmina C., daughter of Americus and Martha (Beal) Smith, of Fairfield.

Dr. Town was a member of Addison lodge, No. 157, F. & A. M., and was prominent in its work for over thirty years.

Communication.

A SYMPOSIUM ON MODERN PROSTATIC INVESTIGATION.

The entire issue of the "*American Journal of Dermatology and Genito-Urinary Diseases*," published at St. Louis, Mo., for May, 1903, will be devoted to a symposium on Modern Prostatic Investigation.

The leading surgeons of the world will take part in this work, which will be discussed, arranged and presented in a manner never before undertaken. The following subjects will be discussed: (1) To what extent occupation tends to prostatic hypertrophy with especial reference to active indoor, active outdoor, and sedentary pursuits. (2) Which suffer oftenest, the phlegmatic or nervous, the lean or obese? (3) Etiology of prostatic hypertrophy. (4) To what extent the Cystoscope has been of service in diagnosis. (5) To what extent habit is responsible for prostatic hypertrophy with especial reference to the use of alcohol and constipation. (6) In what cases palliation is advised, and of what it consists. (7) Ligation of the vasa deferentia and results. (8) Castration for prostatic hypertrophy and results. (9) Bottini operation or some modification of this treatment and its success with special reference to complications, permanency of relief, etc. (10) Supra-pubic drainage with an estimate of results. (11) Supra-pubic prostatectomy and results obtained. (12) Perineal prostatectomy and with what success. (13) Operation of choice for prostatic hypertrophy. (14) What unexpected complications have arisen during the operation for prostatic hypertrophy, and what during the post-operative conduct of cases. (15) Resume of prostatic work.

PROGRAM

— OF THE —

38th Annual Meeting

— OF THE —

Michigan State Medical ... Society ...



At the Masonic Temple,
Detroit, Mich.

Thursday and Friday,
June 11 and 12, 1903



THE COUNCIL

*Wednesday, June 10th, 1 o'clock P. M. Standard, at
Hotel Cadillac.*

*Thursday, June 11th, 4 o'clock P. M. Standard, at
Masonic Temple.*

*Friday, June 12th, 4 o'clock P. M. Standard, at
Masonic Temple.*

Organization and Election of Officers.

HOUSE OF DELEGATES

MASONIC TEMPLE

BY-LAWS—CHAPTER IV. Section 1. Each Component County Society shall be entitled to send to the House of Delegates each year one delegate for every 50 members, and one for each major fraction thereof; but each County Society holding a charter

from this Society, which has made its annual report as provided in this Constitution and By-Laws, shall be entitled to one delegate.

PRELIMINARY MEETING

WEDNESDAY, JUNE 10TH
7.30 P. M. STANDARD

1. Call to order by the President
A. E. BULSON, Jackson.
2. Report of the Council
LEARTUS CONNOR, Detroit, Chairman.
3. Report of Committee on Legislation
B. D. HARISON, Sault Ste. Marie, Chairman.
4. Report of Auxiliary Committee of Committee on National Legislation
EMIL AMBERG, Detroit.
5. Report of Committee to petition the Legislature for an appropriation for the establishment of a properly equipped Sanitarium for the *Treatment of the Early Stages of Tuberculosis*
V. C. VAUGHAN, Ann Arbor, Chairman.

6. Report of the *Michigan Representatives in the House of Delegates* of the A. M. A.

H. O. WALKER, Detroit, Senior Member.

7. Miscellaneous Business

- a) Appointment of Committee on Nominations of 5 to nominate

1st, 2d, 3d, and 4th Vice-Pres.

4 Councilors for 2 years

4 " " 4 "

4 " " 6 "

2 Representatives in House of Delegates,

A. M. A., for 1 year

2 Representatives in House of Delegates,

A. M. A., for 2 years

To fix Place of Meeting for 1904

Adjournment

FIRST DAY, THURSDAY, JUNE 11TH

8.30 A. M. STANDARD

Unfinished and Miscellaneous Business

Adjournment to General Meeting

SECOND DAY, FRIDAY, JUNE 12TH

12 O'CLOCK NOON STANDARD

1. Report of Committee on Nominations
2. *Unfinished and Miscellaneous Business*

Adjournment

GENERAL MEETING

MASONIC TEMPLE

FIRST DAY, THURSDAY, JUNE 11TH

10 A. M. STANDARD

1. Call to order by the President
A. E. BULSON, Jackson.
2. Prayer REV. EDWARD H. PENCE, Detroit.
3. Address of Welcome
HON. WM. C. MAYBURY, Mayor, Detroit.
4. Report of Committee on Arrangements
H. O. WALKER, Chairman.
5. Address of the President
A. E. BULSON, Jackson.

"Reorganization of the Medical Profession of Michigan, with Suggestions for the Future"

6. Oration on Surgery

F. W. ROBBINS, Detroit.

"The Surgeon: His Opportunities and Responsibilities"

7. Miscellaneous Business

- a) Nominations for President

Adjournment

SECOND DAY, FRIDAY, JUNE 12TH

11 A. M. STANDARD

1. Unfinished Business
2. Report from the House of Delegates
3. Oration on General Medicine
I. H. NEFF, Pontiac.
"The Role of Suggestions in Therapeutics"
4. Oration on Obstetrics and Gynecology
F. A. GRAWN, Munising.
"Obstetrics in General Practice"
5. Miscellaneous Business

At 12 o'clock Standard the result of the ballot for President will be announced

Adjournment

Each Paper is limited to 15 minutes for reading; each discussion to 5 minutes

SECTION ON GENERAL MEDICINE

FIRST DAY, THURSDAY, JUNE 11TH

2 P. M. STANDARD

1. Report of a Case of Bilateral Cystic Kidney
H. E. RANDALL, Lapeer.
Discussion of the theories; retention, growth, malformation; rarity; diagnosis; symptoms; report of a case; specimen; treatment—surgical and medical.
2. Reflex Disturbances from Eye-Strain
O. A. GRIFFIN, Ann Arbor.
3. Headache JEANNE C. SOLIS, Ann Arbor.
To introduce the subject the clinical histories of a number of cases will be given. Then will follow a discussion regarding the etiology, pathology, symptoms, diagnosis and treatment of headache.

4. The Essential Points of Distinction between Cerebral and Mental Disease

HIRAM A. WRIGHT, Detroit.

The paper distinguishes between delirium and insanity. It shows how the study of psychology, supplementing our knowledge of the physiology of the nervous system, enables one to distinguish between disease of the brain and diseases of the mind. It states that insanity can exist without disease of the cortex of the brain. It calls attention to the importance of the study of psychology as a preliminary to the study of psychiatry.

5. Some Clinical Observations on Defective Metabolism as a Factor in the Production of some Forms of Mental and Nervous Disease

SAMUEL BELL, Detroit.

The advancement made by the physiological chemist, bacteriologist and pathologist, and the value of their researches in the study of mental and nervous diseases. The importance of somatic conditions. The auto-toxaemic theories and the importance of defective metabolism.

6. The Treatment of the Hypertrophies of the Lymphoid Ring B. R. SHURLY, Detroit.

The structures included in Waldeyer's ring. Prophylaxis and hygiene as factors influencing the development of hypertrophies. The relation of infectious diseases to the hypertrophy or lymphatism. Feeble resistance to infections. Diphtheritic and other pseudo-membranous inflammations; chronic lacunar and chronic parenchymatous inflammations; adhesions to the faucial pillars; polypoid hypertrophy; fibrous variety. The buried tonsil; chronic hypertrophy of the lingual tonsil; adenoids. The radical and conservative schools. Constitutional treatment. Palliative methods. Medicinal treatment used. Sprays, anesthetic, cautery, argyrol, nitrate of silver, iodine, suprarenal extract. Operative interference. Instruments. Comparative value of methods of treatment. Conclusions.

Adjournment

SECOND DAY, FRIDAY, JUNE 12TH

8.30 A. M. STANDARD

1. Rectal Examination: Its Importance and Value in General Practice

LOUIS J. HIRSCHMAN, Detroit.

The proper examination of the rectum is very much neglected. The correct methods of rectal investigation and exploration are described and illustrated. The causes of obstipation, impeded defecation and various reflex disturbances are dwelt upon. A plea is made for more thoroughness in proctoscopy and anoscopy. Such therapeutic measures for the relief of pathologic conditions found in this region as can be readily carried out by the general practitioner are briefly outlined.

2. Skiascopy of the Heart

A. W. CRANE, Kalamazoo.

Factors in an X-ray examination of the heart: Displacement, size, form and movement. The visibility of the heart shadow is increased by deep inspiration, emphysema, cardiac hypertrophy and

dilatation; it is decreased by forced expiration, by adjacent pulmonary shadows, by oedema or congestion of the lungs, by general thickening of the pleura, by emphysema or effusion, and by very thick chest walls. Each factor will be considered so as to give the diagnostic points obtainable by the X-ray in affections of the heart.

3. On Ultra-Microscopic Organisms

F. G. NOVY, Ann Arbor.

Review of the work done in the study of pathogenic organisms which are smaller than any of the known bacteria; so small, indeed, as to be invisible under the highest powers of the microscope.

4. Modified Milk for the Babies of Detroit

COLLINS H. JOHNSTON, Grand Rapids.

The paper describes how Grand Rapids obtained a Walker-Gordan milk laboratory. What it does for the paediatrician, and what it has done for the entire milk supply of the city. Percentage feeding of infants. Some so-called objections to it.

5. Some Considerations upon Infant Feeding

ALEX. M. CAMPBELL, Grand Rapids.

The high infant mortality shows that infant feeding is an unsettled and difficult problem. The milk supply of cities, which should be largely under the control of the Board of Health. The percentage method of modifying Cow's Milk, as carried on by the Walker-Gordan Laboratories.

6. Demonstration of Specimens from the Pathological Exhibit

A. S. WARTHIN, Ann Arbor.

Adjournment to General Meeting

SECOND DAY, FRIDAY, JUNE 12TH

2 P. M. STANDARD

Election of Chairman, Secretary (for 2 years) and Orator of Section

1. Flatulence, Meteorism, Tympanites and their Treatment.

CHAS. D. AARON, Detroit.

Introduction and definition. General remarks. The origin of the gases. Importance of ascertaining the cause. Flatulence as an etiologic factor in appendicitis. Symptoms. The treatment divided into: Dietetic, medicinal and mechanical.

2. The Etiology and Treatment of Hyperacidity of the Stomach Contents

DAVID M. COWIE, Ann Arbor.

The frequency of this condition in students and teachers. In the treatment reference is made to diet, lavage and medicinal agents.

3. The Management of Small-Pox in Houghton County, with Report of 280 Cases

W. H. MATCHETTE, Hancock.

The first discovery of small-pox in the county. Description of subsequent method with legal act to authorize the County of Houghton to construct, or to purchase one or more hospitals, pest houses or quarantine buildings. The type of the disease

with statistics in various cities and states. Vaccination with statistics. A short description of the disease and its modified type.

4. Prevention of Gynecic Evils

J. A. PORTER, Brooklyn.

Methods practiced to prevent conception; comparison of such acts with others in patriotism, sanitation, etc.; consideration of its moral as well as its physical effects. Venereal diseases. Conclusions based on reasons offered.

5. Differential Diagnosis of Typhoid Fever

W. A. FERGUSON, Sturgis.

Differential diagnosis of typhoid from other fevers; the morbid findings; the difference between typhoid of children and adults; the typhoid bacillus and the tests used.

6. Hyperemesis Gravidarum

LEO BREISACHER, Detroit.

Causes, frequency, and method of treatment. Report of a number of cases.

7. Report of a Case of Dermatitis, suspected to be Blastomycetic

WM. F. BREAKEY, Ann Arbor.

Results of microscopic and culture tests made to demonstrate the yeast fungus; the therapeutic effects of potassium iodide to prevent general infection; macroscopic appearance illustrated; history and characteristic behavior; consideration of supposed rarity of the disease; climatic and regional influences; differential diagnosis; pathology; prognosis and treatment.

8. Itching: Its Significance as an Exciting Factor. Measures used for its Relief

ANDREW P. BIDDLE, Detroit.

Description of the Senses. Relation of the sense of itching to common sensation. Itching at times irresistible. Other causative factors introduced by scratching. Measures used to control itching.

Adjournment

SECTION ON SURGERY, OPHTHALMOLOGY AND OTOTOLOGY

FIRST DAY, THURSDAY, JUNE 11TH

2 P. M. STANDARD

1. Excision of Hemorrhoids

WM. L. DICKINSON, Saginaw.

2. A New Procedure for Avoiding Infection After Operation for Cataract

WALTER R. PARKER, Detroit.

3. The Omentum

W. H. HAUGHEY, Battle Creek.

Anatomic and Physiologic Considerations. Its liability to disease. Some peculiar functions in hernia, in pelvic lesions, and in injuries. As a surgical factor.

4. The Climacteric Tumors of the Breast

T. A. MCGRAW, Detroit.

5. Some Conditions which influence the Use of the X-rays in the Treatment of Epithelioma.

WM. F. BREAKEY, Ann Arbor.

6. The Epiphyses from a Radiographic Standpoint (Illustrated by Lantern Slides)

PRESTON M. HICKEY, Detroit.

Adjournment

SECOND DAY, FRIDAY, JUNE 12TH

8.30 A. M. STANDARD

1. Electro-physics and their Application to the Scientific Treatment of Disease

C. L. BARBER, Lansing.

Electricity discussed as a persistent force, which is a part of the atomic structure of matter, and is the vital force so far as the elements now known are concerned; constant, and endowed at all times with an "electrical pull"—that influences protoplasm. Electrical ions act to keep in balance the functions of the human body as well as all other life processes. The knowledge and use of the action of electrical ions serve as a wonderful power and remedial agent in treating disease.

2. Report of Two Cases of Cancer of the Breast occurring in Women under twenty-five years of age

W. A. SPITZLEY, Detroit.

3. The Bougie-Catheter: An Apparatus for Use in Genito-Urinary Surgery

S. C. GRAVES, Grand Rapids.

4. The Surgical Treatment of the Fractured Spine; with a Report of four Cases

C. H. RODI, Calumet.

5. Surgery of the Mediastinum; with Report of the Successful Removal of a Tumor from the Anterior Mediastinum

H. O. WALKER, Detroit.

Adjournment to General Meeting

SECOND DAY, FRIDAY, JUNE 12TH

2 P. M. STANDARD

Election of Chairman, Secretary (for 2 years) and Orator of Section.

1. Only a Drop of Pus

F. J. W. MAGUIRE, Detroit.

2. Report of Five Rare Abdominal Cases:

a) Rupture—Tubal Pregnancy (two cases)

b) Resection of Intestine

c) Caesarian Section

d) Gastrostomy I. N. BRAINERD, Alma.

3. Contribution to the Surgery of the Knee-joint

MAX BALLIN, Detroit.

4. Railway Injury to the Pelvis with Laceration of the Urethra

RALPH H. SPENCER, Grand Rapids.

5. Comparisons in Technic of Gastro-Enterostomy with Description of the McGraw Elastic Ligature S. E. SANDERSON, Detroit.
6. Abuse of the Mechanical Treatment of the Middle Ear EMIL AMBERG, Detroit.

General conditions to be considered. Nose, nasopharynx and throat should be carefully examined. Character of mobility of drum membrane should be established by Sigle's speculum. Necessity of examining the ear thoroughly, also as to its functions before undertaking treatment. Cases of so-called sclerosis of the middle ear engage our special attention. Over-treatment is contraindicated because injurious. Abuse of drugs. Treatment should be controlled continuously by hearing tests. Every detail should be carefully attended to and routine treatment should be avoided.

Adjournment

SECTION ON OBSTETRICS AND GYNECOLOGY

FIRST DAY, THURSDAY, JUNE 11TH

2 P. M. STANDARD

1. The Lacerated Cervix Uteri: Amputation or Trachelorrhaphy—Which?
H. WELLINGTON YATES, Detroit.
2. Prolapse of Uterus, Bladder and Vagina
J. G. LYNDS, Ann Arbor.
3. Ectopic Gestation with Report of Cases
WM. F. METCALF, Detroit.
4. Fibromata of the Vulva with Report of Case
T. S. BURR, Ann Arbor.
5. Ovarian Dermoids
R. E. BALCH, Kalamazoo.

Adjournment

SECOND DAY, FRIDAY, JUNE 12TH

8:30 A. M. STANDARD

1. Dilatation and Curettage
W. H. MORLEY, Ann Arbor.
2. A Case of Streptococcic-puerperal Infection, successfully treated, in which Serum Therapy was used
H. W. LONGYEAR, Detroit.
3. Removal of Appendix during Abdominal Section
J. H. CARSTENS, Detroit.
4. Uterine Fibroma as a Complication of Pregnancy
REUBEN PETERSON, Ann Arbor.

Adjournment to General Meeting

SECOND DAY, THURSDAY, JUNE 12TH

2 P. M. STANDARD

Election of Chairman, Secretary (for 2 years) and Orator of Section

1. The Sequelae of Lacerations of the Cervix
R. L. MORSE, Ann Arbor.
2. The Value of Conservative Operations on the Uterus and Appendices
W. P. MANTON, Detroit.
3. Endometritis—Both from a Surgical and Medical Standpoint
O. S. PHELPS, Battle Creek.
4. A Study in Cases illustrating points of Diagnosis in obscure Appendicial Diseases and others simulating Appendicitis
H. W. LONGYEAR, Detroit.
5. A Study of some difficulties in the use of the Obstetric Forceps
JAMES E. DAVIS, Detroit.

Adjournment

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- 8 S. I. SMALL, Saginaw.
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- 11 W. T. DODGE, Big Rapids.
- 12 THEO. A. FELCH, Ishpeming.

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E. L. SHURLY, Detroit.
A. D. HOLMES, Detroit.
GUY L. CONNOR, Detroit.
ALLEN D. McLEAN, Detroit.

AUXILIARY COMMITTEE TO COMMITTEE ON NATIONAL
LEGISLATION, AMERICAN MEDICAL ASSOCIATION
EMIL AMBERG, Detroit.

*To Petition the Legislature for an Appropriation for the
Establishment of a properly equipped Sanitarium for the
Treatment of the Early Stages of Tuberculosis:*

V. C. VAUGHAN, Ann Arbor, *Chairman*.
H. B. BAKER, Lansing.
L. W. BLISS, Saginaw.
C. G. JENNINGS, Detroit.

COMMITTEE ON LEGISLATION

B. D. HARISON, Sault Ste. Marie, *Chairman*.
GEORGE F. RANNEY, Lansing.
BION WHELAN, Hillsdale.

ENTERTAINMENTS

Reception, Thursday Evening, June 11th, to the
Members and Ladies by the Wayne County Medical
Society, at 8.30 o'clock standard, at the Masonic
Temple.

HOTELS

Cadillac (Headquarters)

| | |
|----------------------|------------------|
| <i>Russell House</i> | <i>Normandie</i> |
| <i>Ste. Claire</i> | <i>Griswold</i> |

MISCELLANEOUS

All Meetings are held on Central Standard Time
at the Masonic Temple, cor. Lafayette Ave. and
First Street.

The *Exhibits* will be found in the Masonic
Temple.—Good Elevator service.

All meetings will be called to order promptly on
time.

**Each paper is limited to 15 minutes; each
discussion to 5 minutes.**

Each member in attendance shall enter his name
in the Registration Book, indicating the County
Society of which he is a member. *Please do not
fail to register upon arrival at the Masonic Temple.*

*Only Members who are registered are entitled
to vote.*

The ballot box for the election of *President* will
be found at the Masonic Temple at the place of the
General Meetings. The polls close at 12 o'clock
noon, Standard, Friday, June 12th.

BY-LAWS—CHAPTER III, SECTION 5

All papers read before the Society shall be its
property. Each paper read shall be deposited
immediately with the Secretary, but the author
may also publish the same in any reputable
journal not published in this State, provided the
printed article bears the statement that it was
"read before the Michigan State Medical Society."

HOTEL CADILLAC, Headquarters

REDUCED RAILROAD FARES

A reduced railroad fare of one and one-third rate
from all points in Michigan, except from local
points on the Main Line of the M. C. R. R. and
L. S. & M. S. Ry., from which the rate of fare
is two cents per mile, has been granted for mem-
bers and their friends attending the meeting of the
Michigan State Medical Society to be held at Detroit,
June 11-12.

**A charge of 25 cents will be made at the
meeting by Special Agent for each certificate
issued by him.**

For conditions see the program in "The Journal
of the Michigan State Medical Society," for May,
1903.